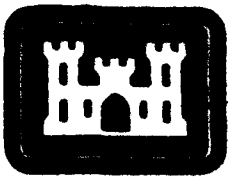

Cultural Resources Series
Report Number: COELMN/PD-93/01

US Army Corps
of Engineers
New Orleans District

CULTURAL RESOURCES SURVEY AND TESTING FOR DAVIS POND FRESHWATER DIVERSION, ST. CHARLES PARISH, LOUISIANA (VOLUME I)

Final Report

May 1994

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Prepared for

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05	06		

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

A cultural resources survey was conducted within the Davis Pond project area, St. Charles Parish, LA. The work included an intensive pedestrian survey with 20 m lane spacing within all of the construction corridor that was not inundated. Shovel tests were excavated at 20 and 50 m intervals in high and low probability areas, respectively. One historic site (16SC73) was recorded within the construction corridor. It was recommended not eligible for the NRHP because of disturbance and lack of research potential. One historic site (16SC74) located near but not within the construction corridor was recommended as potentially eligible. One prehistoric site (16SC76), also located near but not within the construction corridor, was recommended as not eligible because of disturbance and lack of research potential. Excavations were also conducted at 16SC27 (Pump Canal site) which is highly significant. Stratified deposits are present, and these are associated with the Troyville,

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19. Continued

Coles Creek, and Plaquemine cultures. Postmolds and ash lens are the predominant feature types. Faunal and floral remains are well-preserved. Faunal analysis indicates that in all periods fish and other wetland resources accounted for the majority of vertebrate food species. Muskrat were a more important resource than deer. Some changes in diet appeared to occur through time. Analysis of Rangia shells indicated that the relative importance of this shellfish to diets at the site also varied through time. Floral analysis revealed that corn and squash were present in small quantities, apparently in the Incipient Coles Creek and Plaquemine periods respectively. A variety of wild or possible cultigens such as Vitis and Chenopodium were also utilized.

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO ATTENTION OF:

April 18, 1994

Planning Division
Environmental Analysis Branch

To The Reader:

This cultural resources effort was designed, funded, and guided by the U.S. Army Corps of Engineers, New Orleans District, as part of our cultural resources management program. The work was performed to provide information needed to assess cultural resource impacts which could result from construction of the Davis Pond Freshwater Diversion Project.

This report has been reviewed and accepted by the New Orleans District. We concur with the authors' recommendations and commend the contractor's efforts and careful scholarship.

James M. Wojtala
Technical Representative

Michael E. Stout
Authorized Representative
of the Contracting Officer

R. H. Schroeder, Jr.
Chief, Planning Division

ACKNOWLEDGEMENTS

The authors of this report wish to thank all those who participated in the Davis Pond survey and the excavations at the Pump Canal site. Mr. Michael Comardelle first brought this site to the attention of Louisiana archeologists. He provided almost all of the boat transportation during the boat survey and site excavation components of the project, and worked vigorously during pedestrian survey, bankline augering, and excavation. His energy and enthusiasm were essential to the completion of the project. Bernard Comardelle, Ronnie Comardelle, and Troy Dufrene also helped supply boat transportation during the course of the project. Mr. Irvin Dares of the Louisiana Department of Wildlife and Fisheries provided an airboat inspection of the project area's marshland component prior to the commencement of field survey.

The late Dr. Herschel A. Franks served as Principal Investigator for the project. Mr. Kenneth R. Jones was Project Manager, and Mr. Donald Graff was Field Archaeologist. Members of the field crew who participated in the survey and excavation efforts were Craig Hanson, Rhonda Smith, Hawk Tolson, Carrie Leven, Joe Brackett, Anthony Ortmann, Robert Howell, Will Oliver, Suzanne Long, Gail Lazaras, Karl Gotzkowsky, Mark Rees, Maria Tavaszi, and Tara Bond. Ms. Donna Stone served as Laboratory Supervisor, performing the monumental tasks of organizing the field equipment and tracking the artifacts coming into the lab. Her main assistants were Gail Lazaras, Anthony Ortmann, Suzanne Long, and Valentina Matte. Tara Bond and Karl Gotzkowsky also served in the laboratory.

Photos of artifacts were taken by Ms. Maria Tavaszi. Ms. Rhonda Smith prepared the report graphics, with the assistance of Ms. Tavaszi and Ms. Cathy Jones. Ms. Donna Stone illustrated the ceramics from Pump Canal. Ms. Rosalinda Méndez was a technical writer for the report. Ms. Natalie Maillho was chief word processor on the report.

Mr. Benjamin Maygarden provided an historical overview of the project area and surrounding region. Ms. Susan Enzweiler and Dr. Jill-Karen Yakubik wrote the history of Davis and Louisa Plantations. Mr. Michael Comardelle and Dr. Marco Giardino provided a history of the Pump Canal site and a review of their archeological investigations conducted at the site in 1979-1983. Dr. Giardino also analyzed the aboriginal ceramics from Pump Canal. Dr. Tristram R. Kidder analyzed the lithics from the site. Following the death of Dr. Franks, Dr. Kidder completed editing Volume II of this report and produced the ceramic and culture chronology contained therein. Dr. Elizabeth J. Misner and Dr.

Elizabeth J. Reitz analyzed the vertebrate fauna from the Pump Canal site. Dr. James Patrick Whelan, Jr., provided an analysis of *Rangia* shell from the site. Mr. J. Philip Dering identified the plant remains from the Pump Canal site and analyzed the coprolites recovered from excavations there. Ms. Gail Lazaras described the flotation method used to recover plant remains. Dr. Glen G. Fredlund provided an analysis of opal phytoliths from the site. Dr. Yakubik analyzed the historic artifacts recovered during surface collection and excavation at the Pump Canal site.

The authors would particularly like to thank Mr. Michael Stout, who was Contracting Officer's Representative, and Mr. James Wojtala and Mr. Van Button, who served as Technical Representatives for the New Orleans District, U.S. Army Corps of Engineers, during the extended process of fieldwork, data analysis, and report preparation.

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CHAPTER 1
INTRODUCTION

A Davis Pond Freshwater Diversion Project is being considered for construction by the U.S. Army Corps of Engineers. The project area is situated on the west bank of the Mississippi River in St. Charles Parish. Construction will allow controlled diversion of water from the river into swamps which drain into Lakes Cataouatche and Salvador, and ultimately Barataria Bay. Construction will include a diversion structure and a system of guide levees. That construction will necessitate earth-moving activities which could impact cultural resources.

Earth Search, Inc. was contracted by the New Orleans District Corps of Engineers to conduct a study designed to: (1) identify all cultural resources located in areas of direct initial Project impact; (2) discover and document any significant historic period archeological sites and/or architecture located in the Project area; (3) develop a factually based model of how the Project, over the long term, may affect pursuing significant archeological research in the areas of Lakes Salvador and Cataouatche;, and (4) develop an operational research design to guide future project work to be done under later delivery orders, if necessary. Another aspect of the contract involved excavations at the Pump Canal Site (16SC27) (Scope of Services, Appendix I).

Phase 1 of the present project consisted of background research and an informal field reconnaissance to assess survey conditions and to determine the probability for encountering cultural resources in the project area. Figure 1 is a map providing an overview of the entire study area. Figures 2 through 5 show the direct project impact areas surveyed and areas within the proposed guide levees. The various areas are discussed briefly in the following paragraphs.

Area 1 (Batture)

This area represents the upriver portion of Louisa Plantation and the downriver portion of Davis Plantation (Figure 2). The 1894 Mississippi River Commission map indicated that at that date structures were located in the vicinity of Area 1. For this reason, the area was targeted for shovel testing with a 20 x 20 m grid. Area 1 was approximately 620 m in length and 120 m wide. This area encompassed the location of the proposed diversion structure and 200 m on each side of the structure. Much of the area consisted of borrow ponds.

Area 2

Figure 2 represents natural levee associated with the Mississippi River. Proposed construction within Area 2 consists of the landward portion of the diversion structure, a diversion channel, and guide levees. For purposes of survey, Area 2 was divided into four subsections.

Area 2A

Figure 2 represents the riverward portion of the natural levee. It was defined as a high probability area for historic site location because the 1894 Mississippi River Commission Map depicted a structure either here or on the present-day batture. Also, most of the area was fenced at that date. Although the fence may have enclosed a pasture, it was considered possible that the 1884 Davis Crevasse had destroyed structures in this vicinity. The five-foot contour line was used as the southern boundary of Area 2A. This boundary was selected because most historic sites in the area are located riverward of that line. For instance, the Louisa Plantation sugar house located upriver from Area 2A is situated near that line. Studies of plantation layout indicate that few if any structures were located at greater distances from the river than sugar houses. Because Area 2A was considered a high probability zone for the location of historic sites, a decision was made to employ the 20 x 20 m grid used for pedestrian survey in Area 1 (above).

Area 2B

Figure 2 represented the remainder of the natural levee. Because elevations were lower than five feet there, and because the 1894 Mississippi River Commission map did not depict improvements within the area, it was considered an unlikely locale for historic sites. It was considered possible, however, that buried prehistoric sites might be present.

Natural levee formation associated with the present-day Mississippi River channel began here approximately 4700 years BP and has continued to the present (Britsch and Dunbar 1990:25-27 and Chapter 2, this report). In terms of the regional culture chronology, land formation began during the Archaic period and continued through all subsequent periods. However, archeological field investigations in the delta region of Mississippi River natural levee have yielded little evidence of prehistoric occupations along the natural levee associated with the present-day channel. Failure to


R I V E R
Live Oak Manor
WAGGAMAN POND
West Avondale Gas Field
Milltown Park
Lake Star
Drill Hole
Bayou
Pond
Canal
Levee
Trail
Gulf
6
7A
7B
7C
8
10A
10B
2D

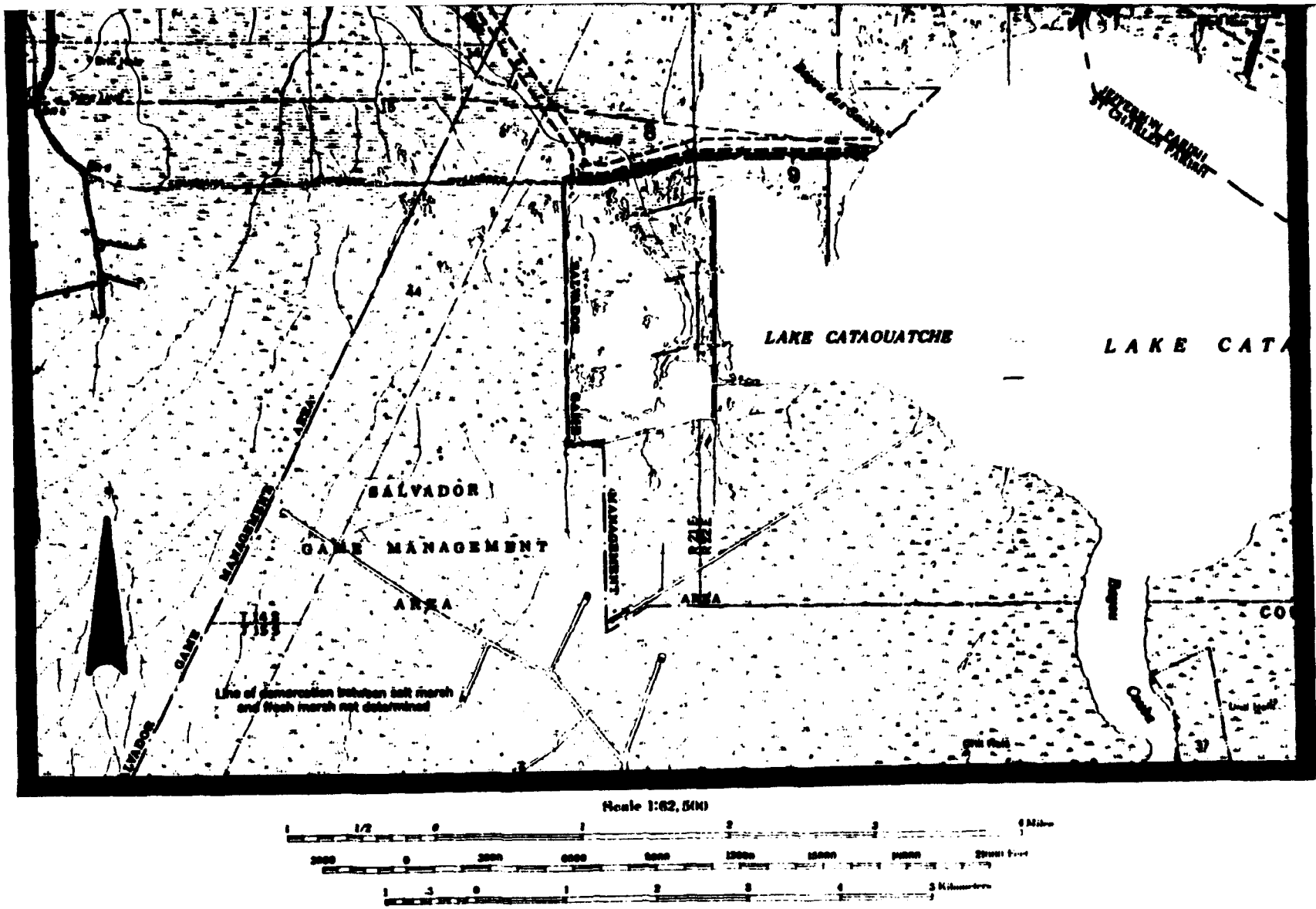

Figure 1. Excerpt from the Hahnville (1969) and New Orleans (1967) 15' quadrangle showing portions of the survey area.

M I S S
Davis Pond
Drill Hole
LOUISA
CANAL
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27
43
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7A

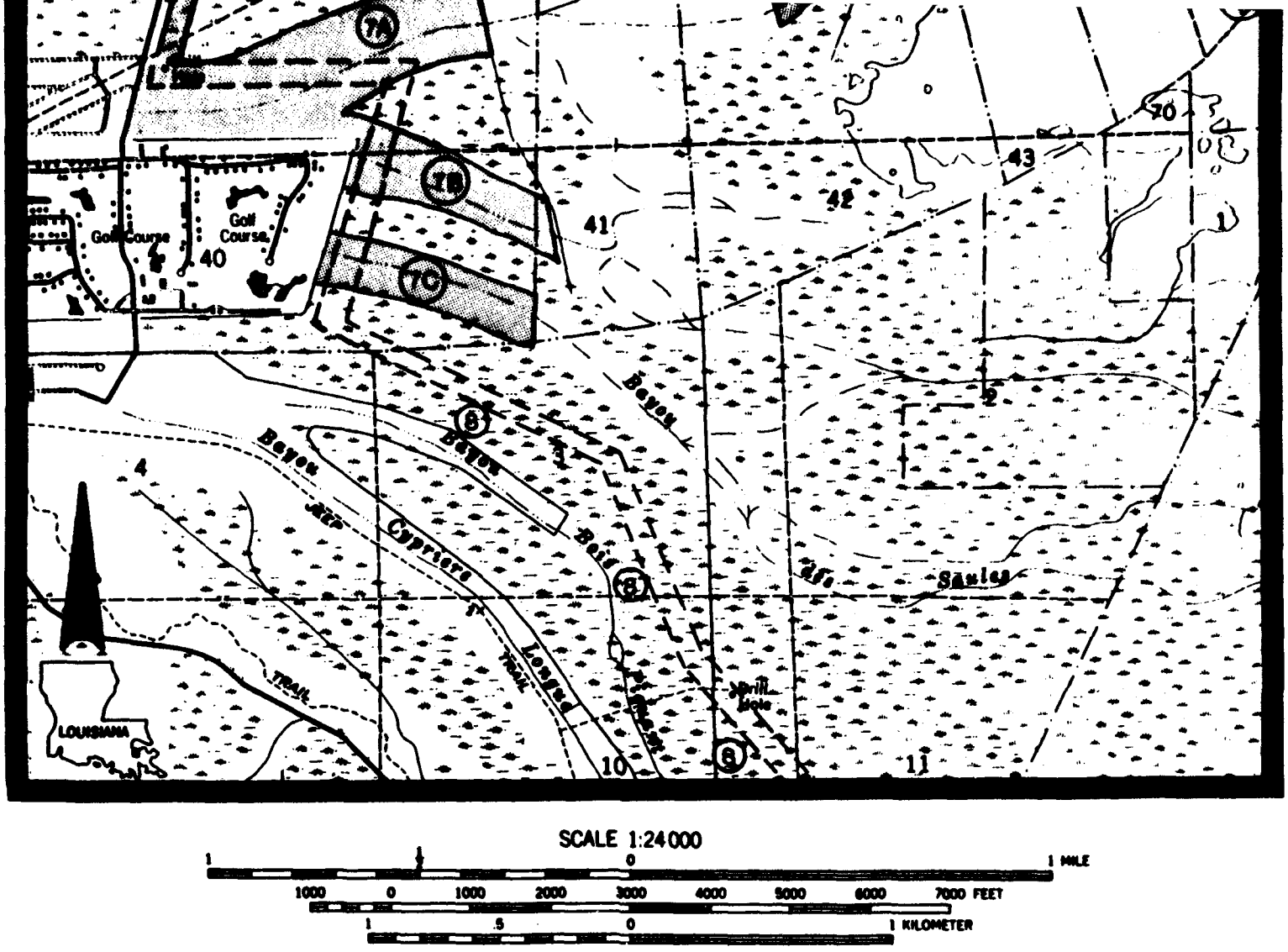


Figure 2. Excerpt from the Luling 7.5' (1989) quadrangle showing portions of the survey area.

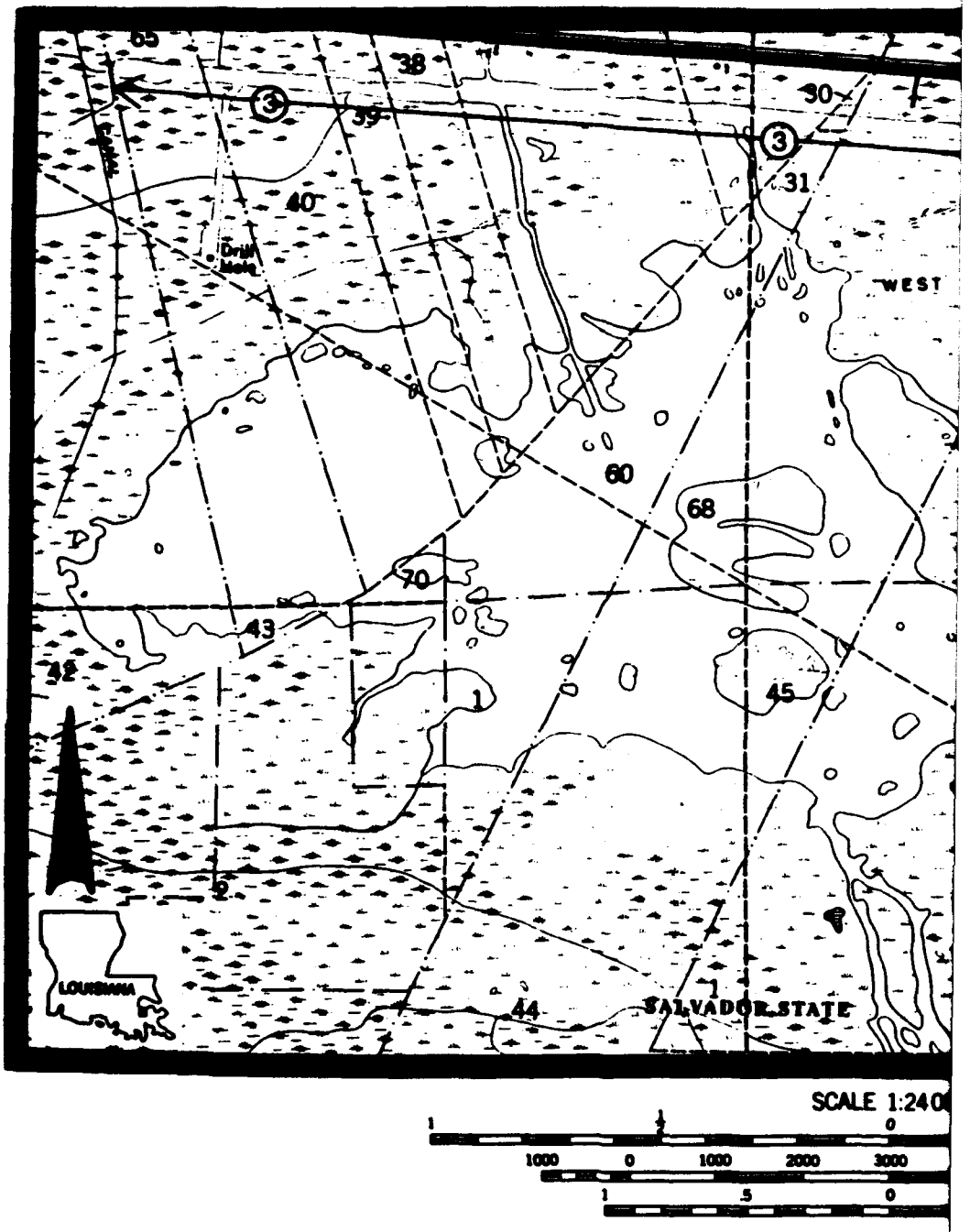
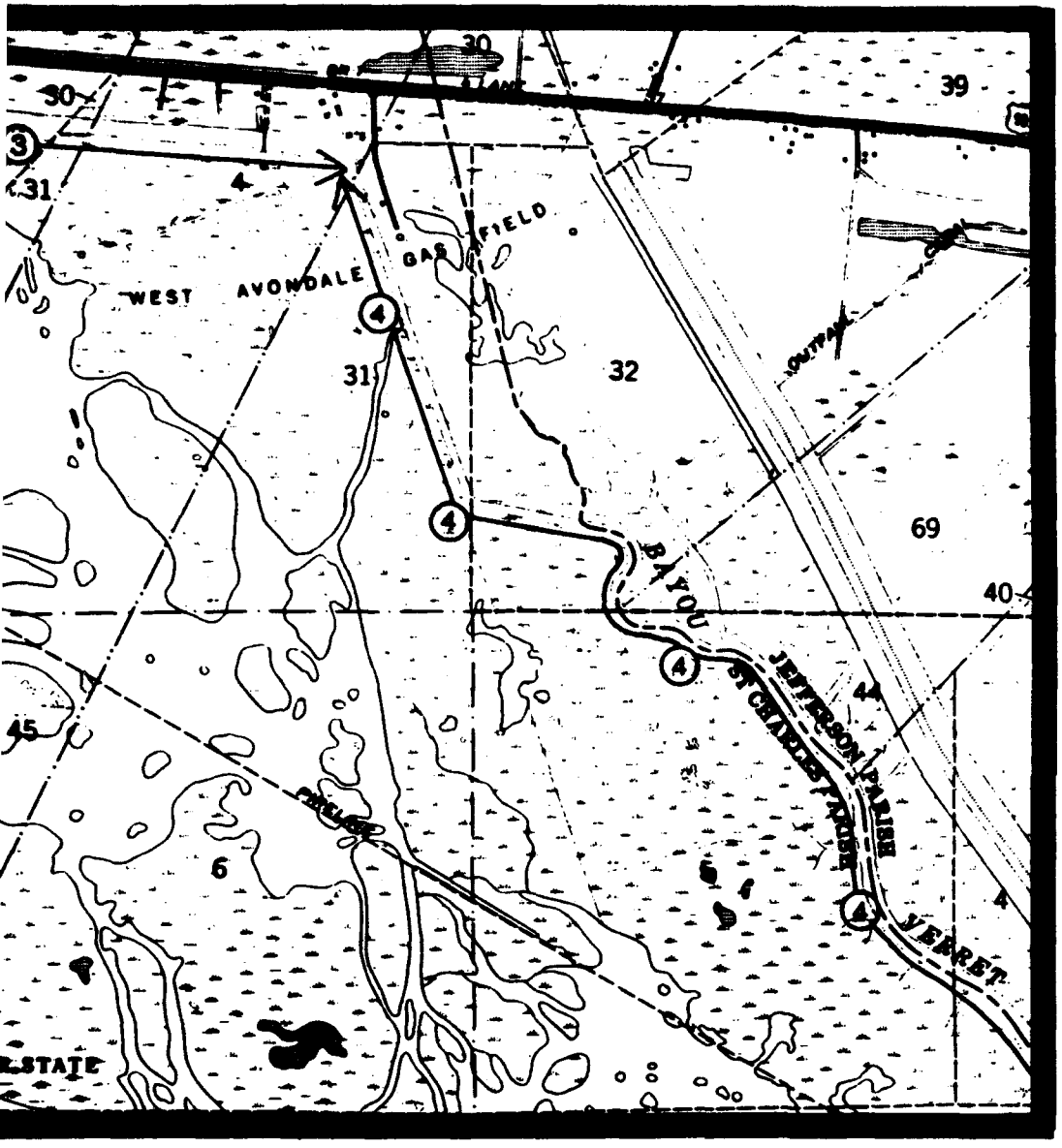


Figure 3. Excerpt from the Lul
showing portions of the survey



rom the Luling 7.5' (1989) quadrangle
the survey area.

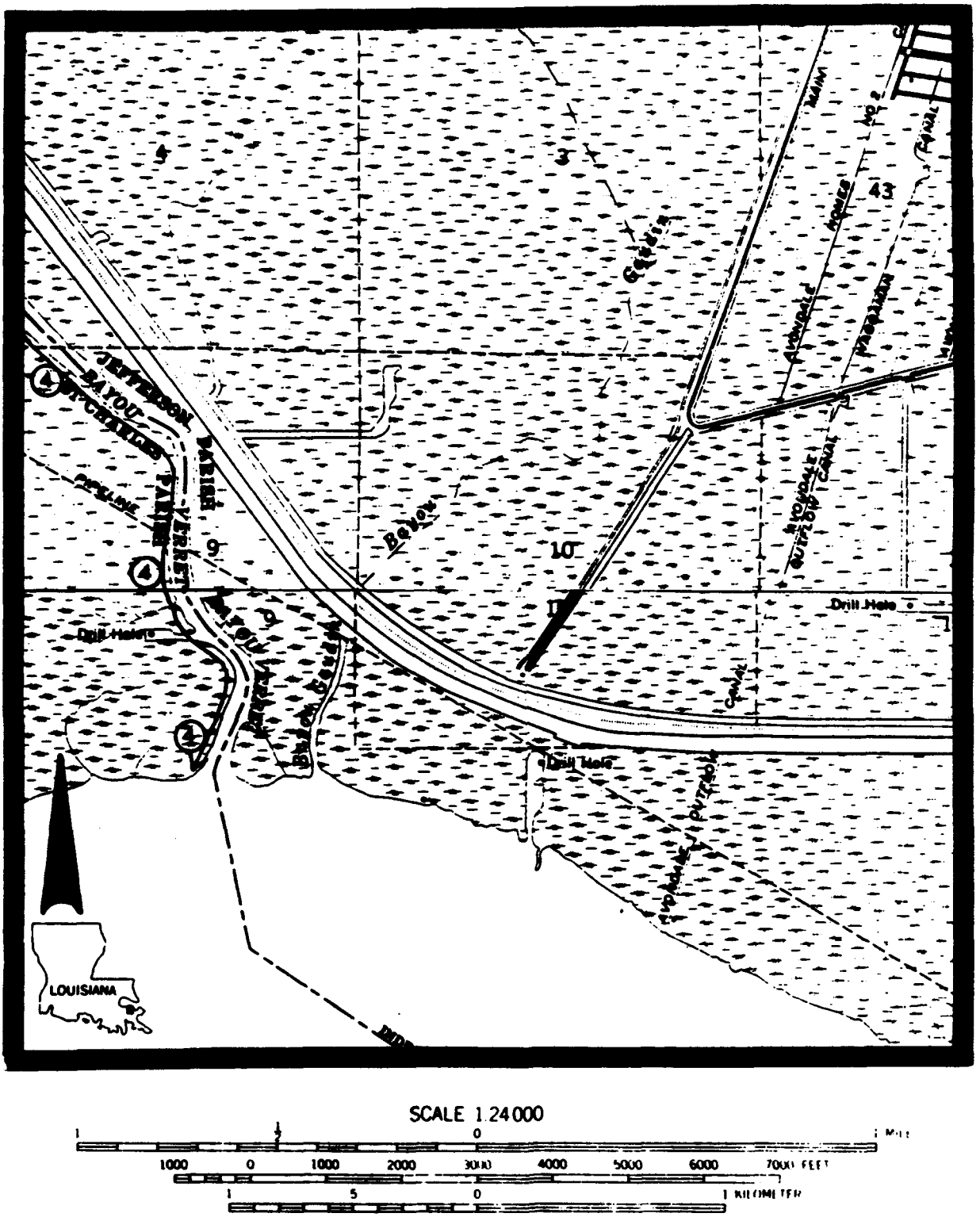


Figure 4. Excerpts from the New Orleans West 7.5′ (1979) and Lake Cataouatche East 7.5′ (1982) quadrangles showing portions of the survey area.

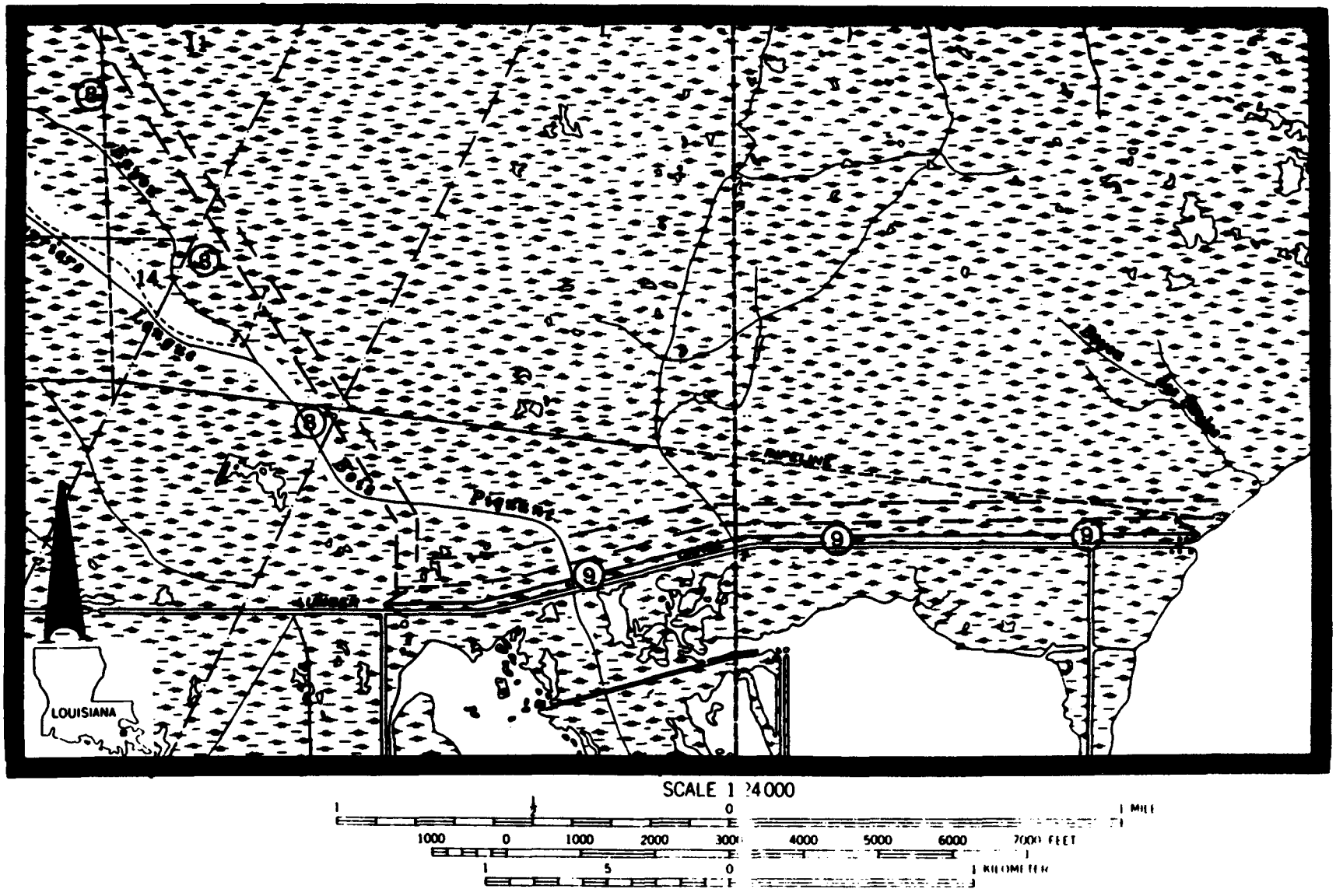


Figure 5. Excerpt from the Lake Cataouatche West 7.5' (1979) quadrangle showing portions of the survey area.

locate sites associated with the main channel may be the result of relatively high deposition rates. Britsch and Dunbar (1990:13) indicate that the natural levee here is up to 10 m thick. This suggests a deposition rate of up to 21 cm per century. If this rate is correct, then, even a late Coles Creek/early Mississippi Period site would lie buried beneath approximately 2 m of sediment. Also, sediment was deposited in part of this area during the 1884 crevasse. This would have added to overburden. Conventional archeological survey techniques are inadequate for locating such sites in undisturbed areas.

Because archival research indicated that historic period sites were unlikely within Area 2B, and because conventional survey techniques would be unlikely to yield evidence of aboriginal sites predating the protohistoric period, the area was defined as low probability for site occurrence. The plan for survey was to utilize 20 m transect lanes but to increase the shovel test interval to 50 m.

Area 2C

Area 2C is an inland swamp between the Mississippi River natural levee and a series of distributary natural levees (Figure 2). Previous research in the region indicated that prehistoric sites were not likely to be present in such low-lying, seasonally flooded areas. Therefore, Area 2C was considered a low probability location for prehistoric site occurrence. The plan for survey was to utilize 20 m transect lanes with 50 m shovel test intervals.

Area 2D

Area 2D represents the proposed location for part of the eastern guide levee (Figure 2). In terms of geomorphology and probability for site occurrence, Area 2D was considered the equivalent of Area 2C. Therefore, the plan for pedestrian survey was to employ comparable lane and shovel test spacing.

Area 3

Area 3 represents the proposed location for an additional segment of the eastern guide levee (Figures 2 and 3). It follows the south side of the borrow pond associated with Highway 90. Britsch and Dunbar (1990) indicate that this area is predominantly freshwater marsh. Sites are expected to occur only where distributary natural levees are present. The Britsch and Dunbar (1990) map indicates that the only such area is at the western end of the borrow pond

where it crosses two abandoned distributary channels associated with the Bayou Verret system. The remainder of the area is either seasonally or permanently flooded.

Initial reconnaissance of the study area indicated that survey of Area 3 could be conducted only by boat. Because the occurrence of prehistoric sites was considered unlikely within most of the area, a decision was made to excavate subsurface shovel or auger tests only at 50 m intervals as conditions allowed. However, it was intended that additional tests would be placed within the area associated with the natural levees discussed in the two preceding paragraph because of the increased likelihood for prehistoric site occurrence. Here, some pedestrian survey was to be conducted as conditions allowed, and subsurface shovel or auger tests were to be placed at 20 m intervals.

Area 4

Area 4 was defined as the western banks of Sellers Canal and Bayou Verret south of the Highway 90 borrow pond (Figures 3 and 4). The USGS quadrangle and Britsch and Dunbar (1990) both indicate that only freshwater marsh is present. However, geomorphological study of the area indicated that natural levees were formerly present here (Britsch and Dunbar 1990: Figure 7). Deterioration of these natural levees may be the result of two factors. First, the Bayou Verret system is relatively recent, and probably carried water only during intermittent crevasses. The resulting natural levee may not have been well-developed. Second, large numbers of small boats utilize the canal and bayou at present. As a result, wave wash has eroded the natural levee.

Absence of natural levee greatly reduced the probability for recording prehistoric sites within Area 4. Therefore, a decision was made to conduct bankline survey from a boat with shovel or auger tests placed at 50 m intervals. Additional subsurface tests were to be excavated at locations suggestive of crevasse splays.

Area 5

Area 5 is the location of part of the proposed western guide levee for this project (Figure 2). It is located within low-lying swamp directly behind the Mississippi River natural levee. Britsch and Dunbar (1990) indicate that this has been the condition here since 3500 BP and that prior to that date, it was freshwater marsh. Thus, this was defined as a low probability area for prehistoric site occurrence. The westernmost portion of this area is somewhat higher due

to the 1884 crevasse, but no sites were anticipated as a result of this event. The plan for survey called for 20 m wide pedestrian transect lanes with shovel tests at 50 m intervals along each transect.

Area 6

Area 6 parallels Willowdale Drive (Figure 2). Part of the western guide levee will be erected here. Conditions and site probability were considered to be the same as Area 5, and the same field techniques were to be applied here.

Areas 7A, 7B, and 7C

Areas 7A, 7B, and 7C represented natural levees that began forming in ca. 3500 BP (Chapter 2) (Figure 2). Part of the western guide levee for the proposed project will cross the three areas. Because of their age and the presence of natural levee, the areas were defined as high probability locations for prehistoric site occurrence. For this reason, the plan for survey specified 20 m transect lanes with shovel tests at 20 m intervals.

Area 8

Area 8 is associated with the portion of the western guide levee that parallels Bayou Bois Piquant (Figures 2 and 5). On the enclosed maps, the proposed location for the guide levee is indicated as a pair of dashed lines. The figures show that the levee will be erected at distances of 100 to 500 m east of the bayou, which according to the USGS quadrangle is within inland swamp.

The initial segment of Area 8 begins at the southeast corner of the Willowdale Subdivision and extends SE for approximately 1250 m between Bayou des Saules and Bayou Bois Piquant (Figure 2). Because the area is seasonally inundated and lies between natural levees rather than on one, it was considered a low probability area for prehistoric site occurrence. However, the area's proximity to two natural levees suggests some possibility of sites. Therefore, a decision was made to attempt to follow the route of the projected levee with pedestrian transects 20 m wide and to excavate shovel and/or auger tests at 50 m intervals along each transect.

The remainder of this portion of the guide levee then parallels Bayou Bois Piquant, and is not close to any other natural levees. It was anticipated that the area of direct impact would be almost perpetually inundated. For this reason, a decision was made to attempt to survey the natural

levee on the east side of Bayou Bois Piquant. One pedestrian transect was to be placed immediately adjacent to the actual channel. Additional transects would be located 20 m and 40 m east of the channel. These transects were to begin at the end of the present artificial levee that surrounds the portion of the bayou closest to Willowdale Subdivision and were to continue southeast to the point where the projected guide levee actually crosses Bayou Bois Piquant. If conditions allowed, then subsequent transects would be surveyed at 60 m, 80 m, and 100 m from the channel. This regimen was designed to determine the extent of the natural levee associated with the Bayou Bois Piquant channel and its distance from the construction corridor. The plan for survey specified that shovel or auger tests would be excavated at 20 m intervals.

At the southern end of Area 8, the projected guide levee crosses Bayou Bois Piquant and continues south to the Louisiana Cypress Lumber Canal (Figure 5). It was intended that an effort would be made to follow the actual course of the guide levee with 20 m transect lanes here because Britsch and Dunbar (1990) suggested a subsided channel may have been located nearby. Subsurface tests were to be placed only at 50 m intervals unless evidence of a natural levee was noted.

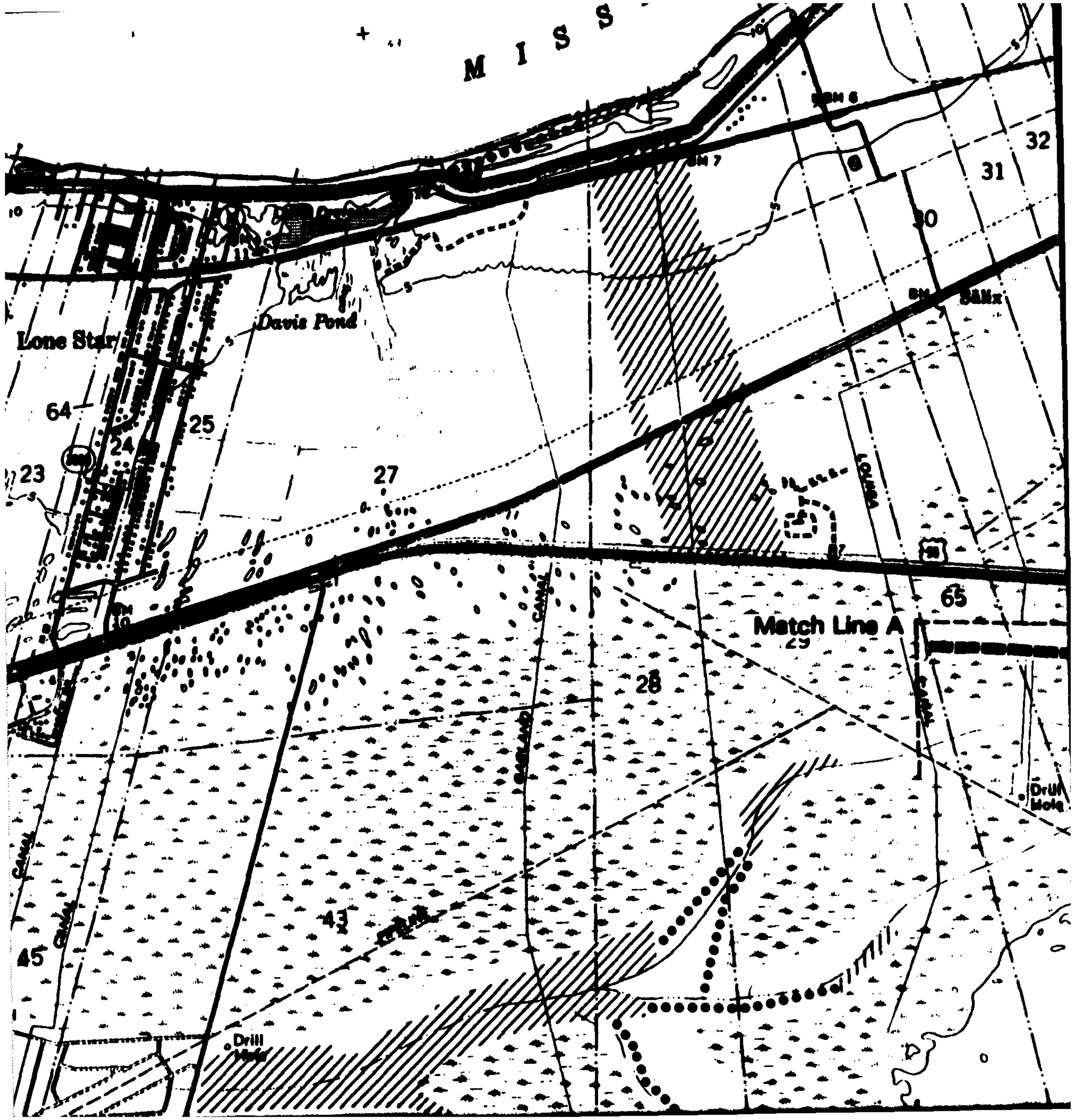
Area 9

Area 9 was drawn as the projected location of a guide levee on the north side of the Louisiana Cypress Lumber Canal (Figure 5). The plan for survey specified bankline inspection of the north side of the canal from a boat. The canal runs through a freshwater marsh so the area was considered a low probability zone for site occurrence. For this reason, a decision was made to excavate subsurface tests only at 50 m intervals. However, because the canal crossed two distributary channels, it was intended that additional tests might be placed at those locations.

Areas 10A and 10B

Areas 10A and 10B represent natural levee within the interior of the eastern and western guide levees (Figure 2). They were selected for survey because the diversion channel will cross the northernmost of the two distributaries and the southernmost is also within the potential path of the channel.

Actual field conditions, including perpetual inundation of some areas, necessitated numerous modifications to the plan for survey. Figures 6, 7, 8, and 9 show those portions



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Lone Star
Davis Pond
Match Line A
LOUISA
CANAL
GARLAND
Drill Hole
Drill Hole

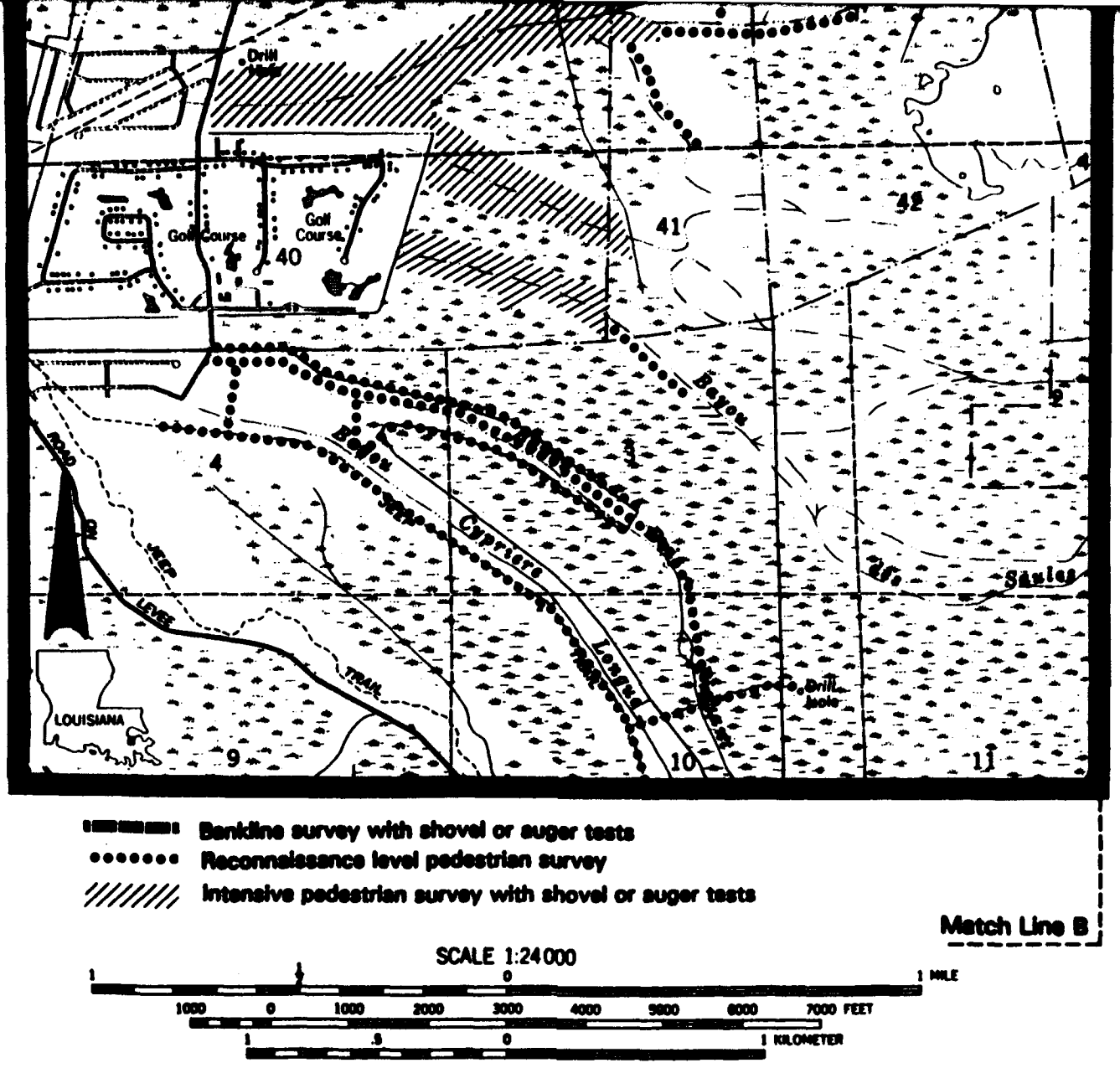
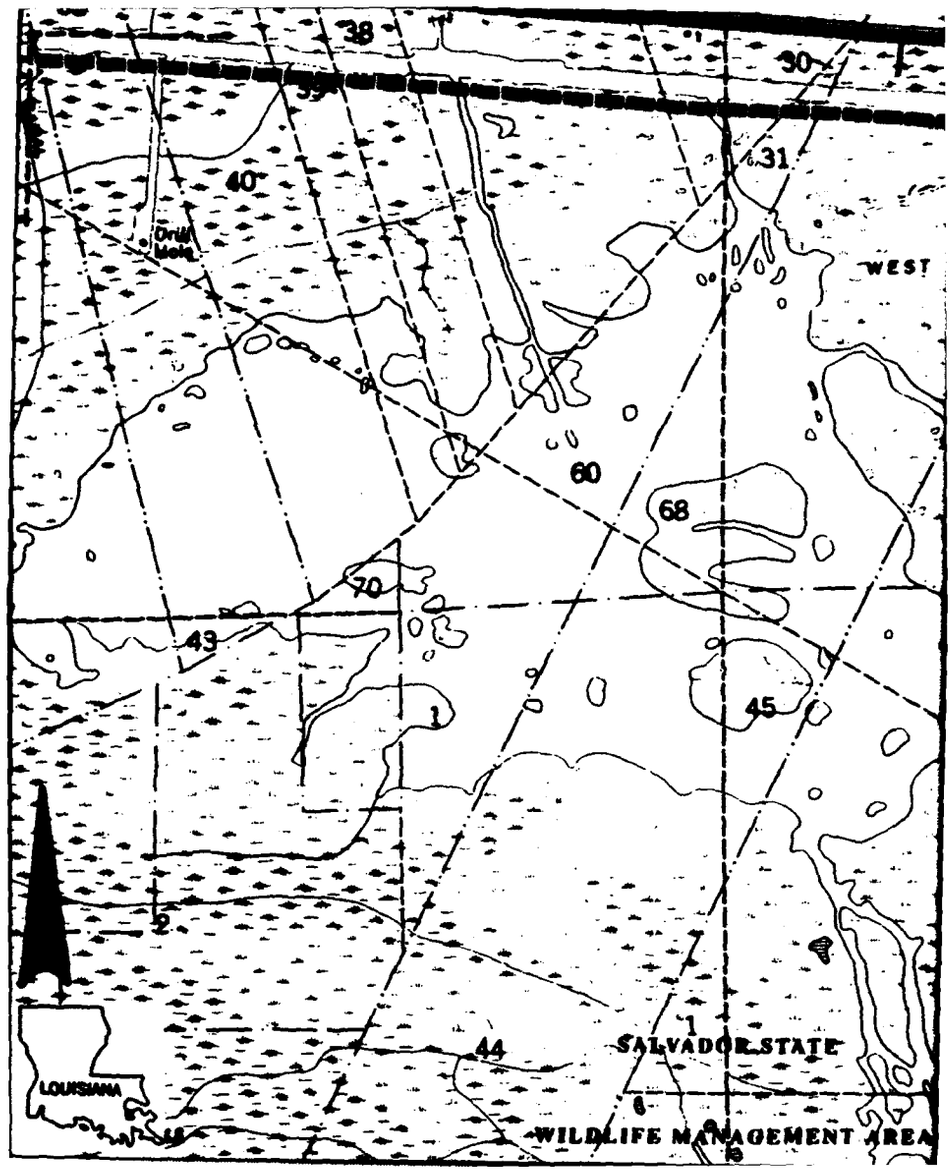


Figure 6. Excerpt from the Luling 7.5′ (1989) quadrangle showing portions of the area actually surveyed.


38
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Drill Hole
WEST
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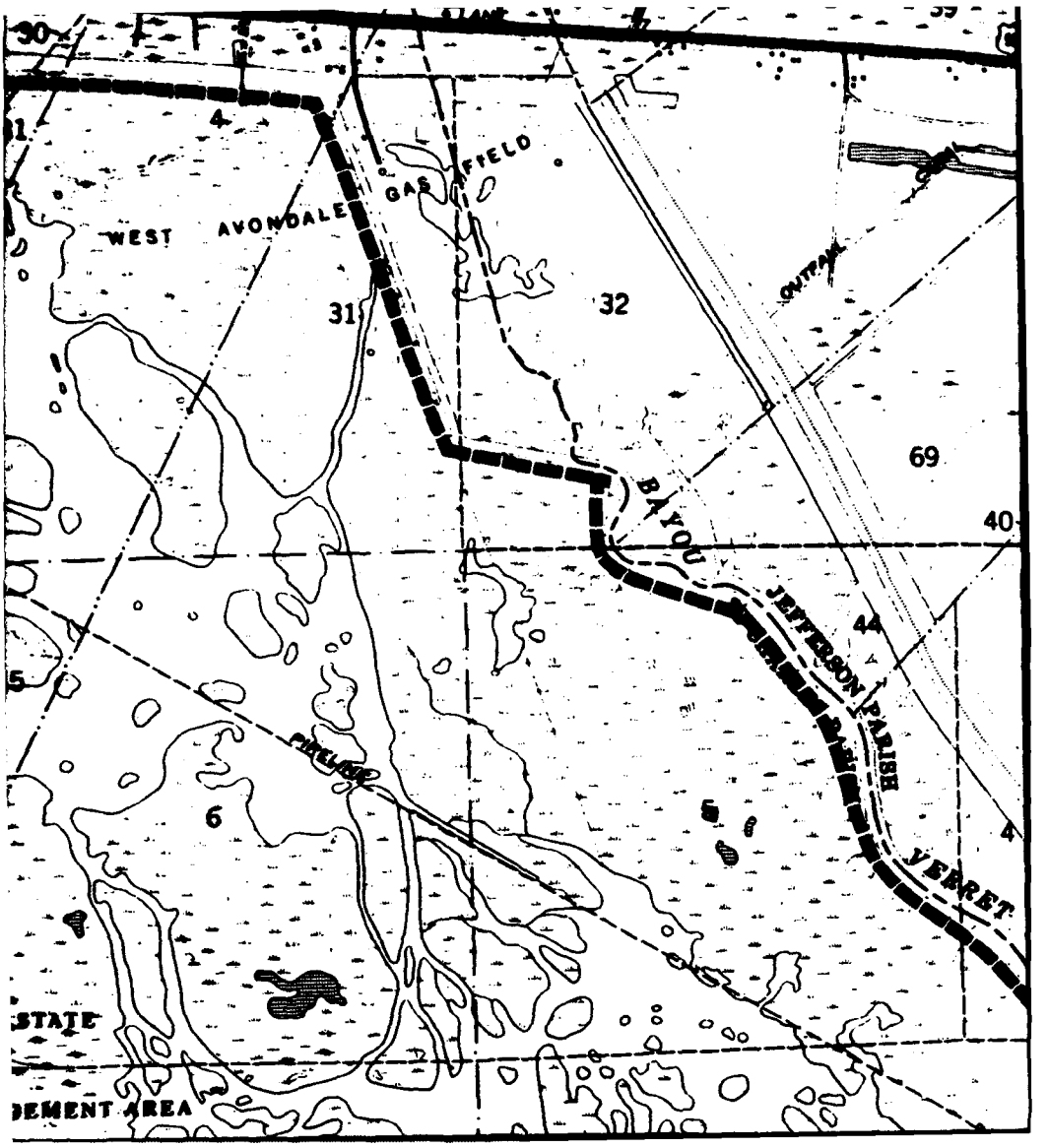
LOUISIANA
WILDLIFE MANAGEMENT AREA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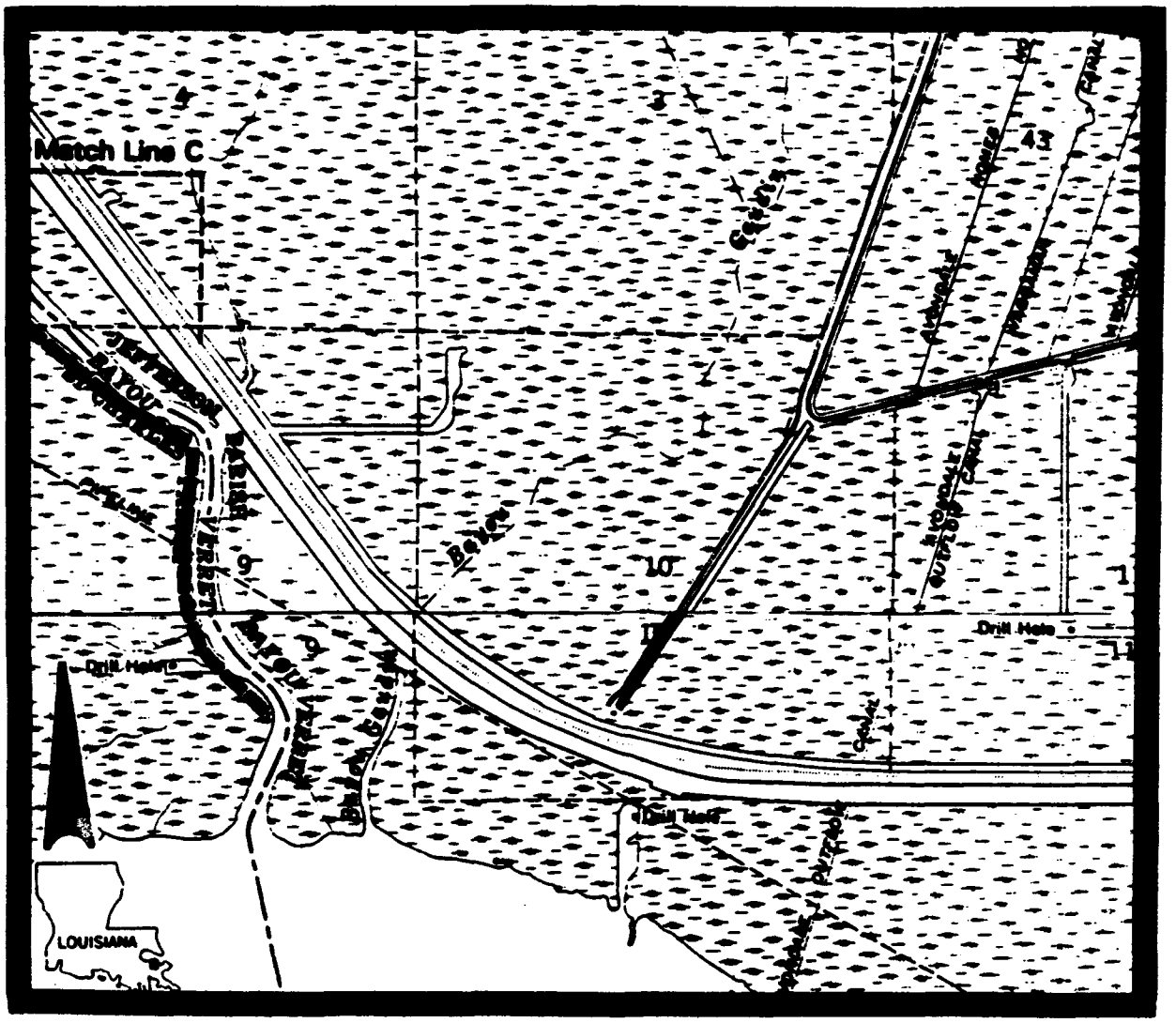


Figure 8. Excerpts from the New Orleans West 7.5' (1979) and the Lake Cataouatche East 7.5' (1982) quadrangles showing portions of the area actually surveyed.

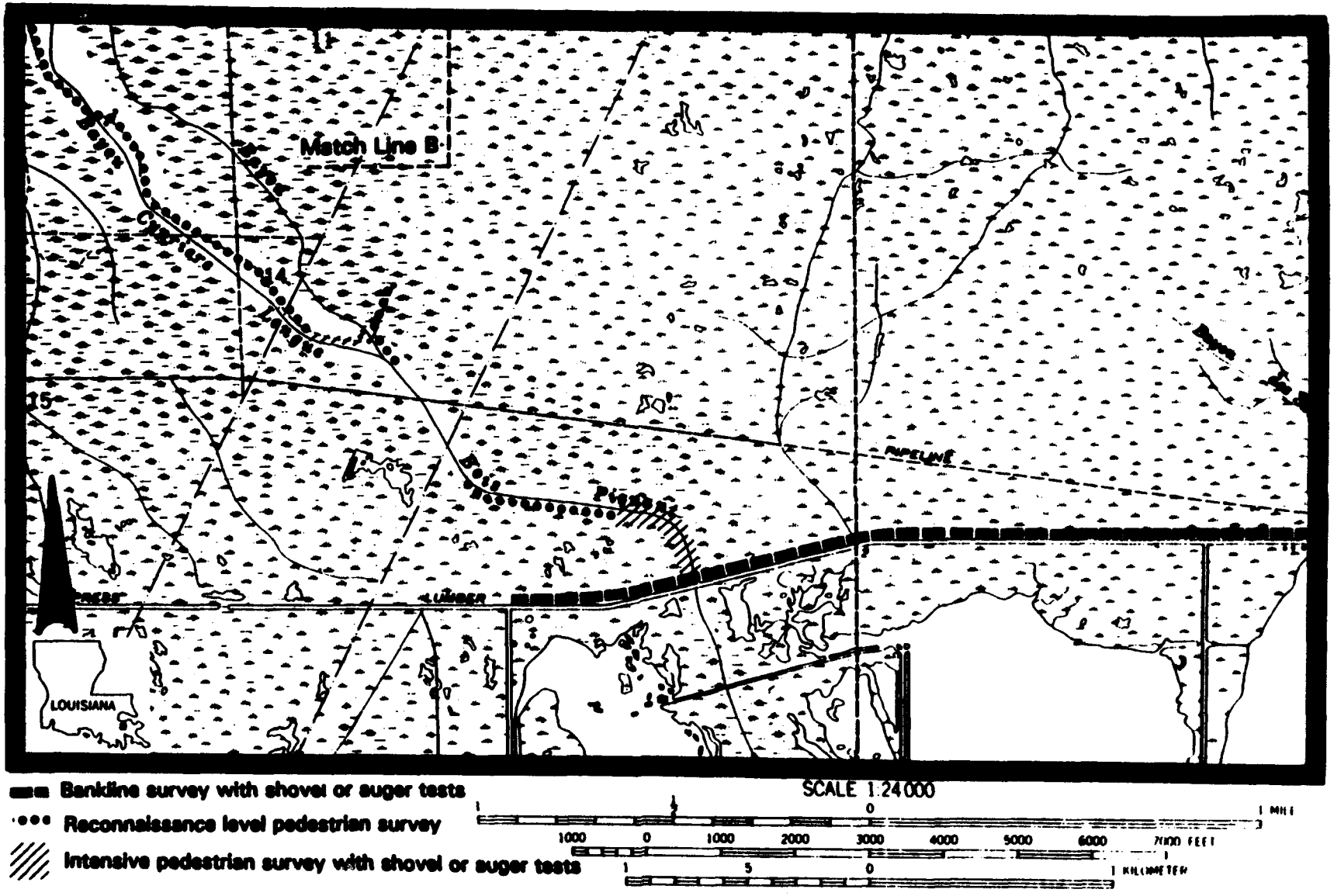


Figure 9. Excerpt from the Lake Cataouatche West 7.5' (1979) quadrangle showing portions of the area actually surveyed.

of the study area where pedestrian or boat survey was actually conducted. These figures are discussed in a subsequent chapter of this report.

Discussion of Sites

Also included in the report are discussions of site 16SC73 which was identified within the impact corridor. It is recommended that the site be considered ineligible for nomination to the National Register of Historic Places. Two other sites (16SC74 and 16SC76) are also discussed. These are outside the project area. It is recommended that if construction plans are modified in such a way that 16SC74 will be impacted, then sufficient excavations should be conducted to allow a definitive assessment of its NRHP status. No further work is recommended at 16SC76.

This report also discusses the results of excavations conducted at the Pump Canal Site (16SC27). Field observations, ceramic analysis, faunal analysis, and floral analysis are included. The nature of project impacts to this site and other sites on Lake Cataouatche and within the project ponding area are presented in the final chapter of this report.

CHAPTER 2
GEOMORPHOLOGY OF THE DAVIS POND AREA

The Britsch and Dunbar (1990) Study

In 1989, the Waterways Experimental Station of the Corps of Engineers, Vicksburg, undertook a geomorphological study of the area that would be affected by construction of the Davis Pond freshwater diversion structure. The four goals of the study were: (a) to map geomorphic features or landforms, (b) to reconstruct geomorphic development of the area to the extent possible, (c) to define former and present geomorphic processes in the area, and (d) to obtain data that would aid locating archaeological sites (Britsch and Dunbar 1990:3). Results of the Britsch and Dunbar (1990) study are the primary source for the discussion presented in this chapter. Terminological usage (e.g. deposits, environments, and systems) follows that of the study.

Geomorphological data were obtained initially by Britsch and Dunbar (1990) from analysis of aerial photographs. In addition, existing soil cores were analyzed and twelve new cores were obtained through the use of a vibracore sampler. Twenty radiocarbon dates from selected stratigraphic horizons were obtained in order to define the chronology of stream and natural levee formation. These dates were obtained primarily from peats and organic clays associated with sediments located beneath or within natural levee deposits. Other techniques included biostratigraphic analysis and radiography (Britsch and Dunbar 1990:6-12).

Local Geomorphic Setting

Mississippi River deltaic sediments have been deposited in the Davis Pond area over the past 4700 years. The area is marked by a bifurcating network of abandoned distributaries which radiate out from an area near the bank of the present-day Mississippi River. Upstream portions of these distributaries have been destroyed by river meandering or have been buried by more recent sediments (Britsch and Dunbar 1990:13).

Figure 10 shows the system of distributary channels in the vicinity of Davis Pond at present. It also shows various environments of deposition. These are characterized as natural levees, distributary channels, point bars, inland swamps, fresh water marshes, and crevasse splays.

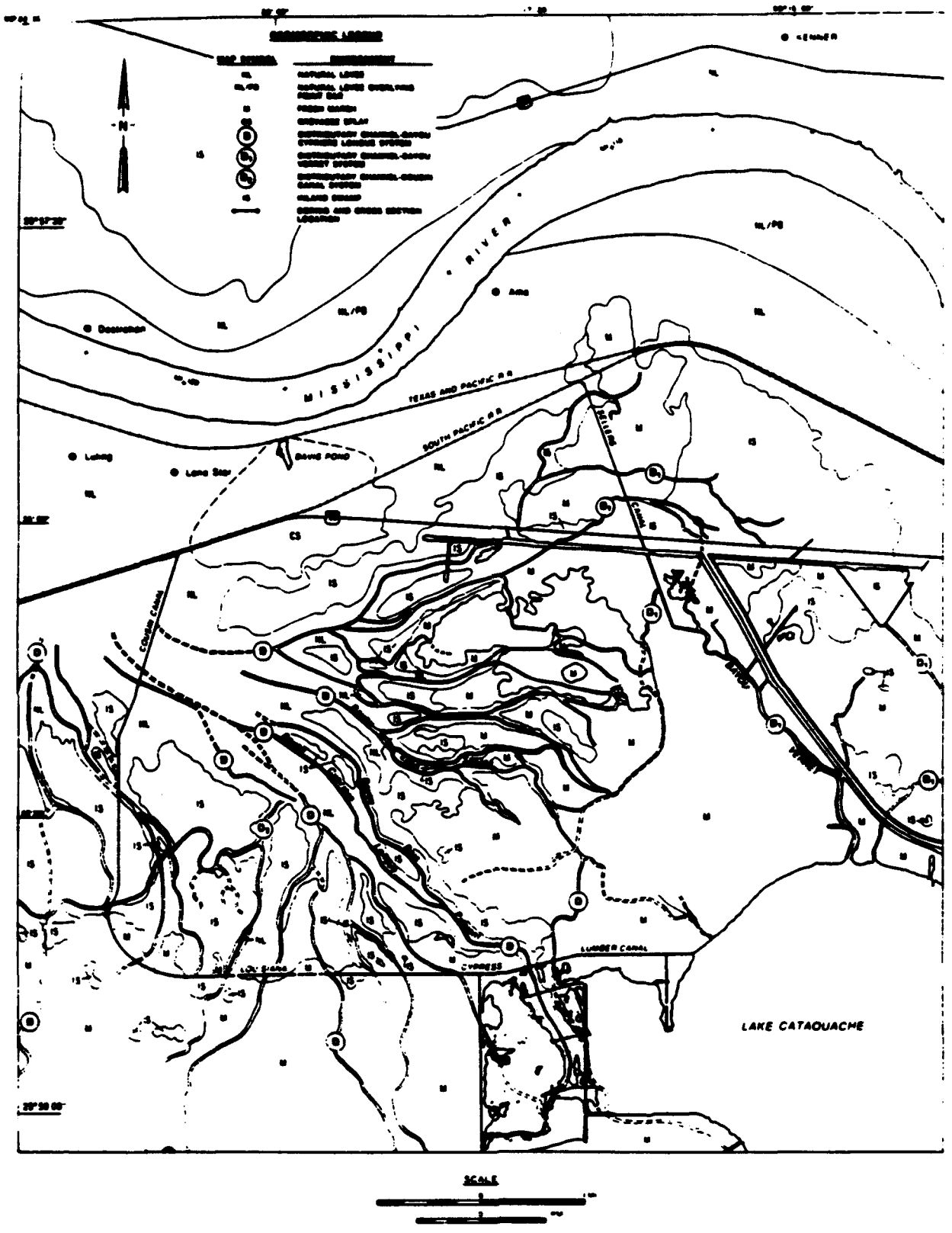


Figure 10. Geomorphic map of Davis Pond study area showing environments of deposition (from Britsch and Dunbar 1990:14).

Natural levees form when sediment suspended in flood flow is deposited adjacent to a channel. Over time, vertical accretion occurs and the resulting landform is a low, wedge-shaped ridge. Natural levees adjacent to the Mississippi River in the vicinity of Davis Pond are 0.8 to 2.4 km wide, and up to 10 m thick. Those associated with distributary channels are much narrower, and their thickness ranges from 3 to 6 m. In the northern portion of the area, natural levees adjacent to distributary channels remain well-exposed at the surface. However, in the southern portion of the area only the levee crests are exposed at the surface because of subsidence and erosion (Britsch and Dunbar 1990:19).

Natural levees in the vicinity of Davis Pond are thicker than is usually the case in the deltaic plain. This unusual thickness is evidence of a long period of active crevassing. Soils in these natural levees are clay, silt, and fine sand. Deposits are coarser-grained near channels and finer-grained at greater distances from the channels. Organic content is generally low. Soils are well drained with low water contents, and exhibit a stiff to very stiff consistency (Britsch and Dunbar 1990:13,19).

Distributary channels are defined as "...channels that diverge from the trunk channel dispersing or 'distributing' flow away from the main course" (Britsch and Dunbar 1990:19). They originate initially as crevasse channels during periods of high flow. When floods are of sufficient duration, a permanent distributary channel is established. Abandonment of distributary channels occurs after major course shifts upstream or after crevassing occurs a short distance upstream, thereby diverting flow. During the process of abandonment, the channel base is infilled with sands, silts, and organic debris. Infilling decreases flow velocities, and the result is increased infilling with clay, organic ooze, and peats (Britsch and Dunbar 1990:19-20).

The major abandoned distributary channels within the study area are Bayous Verret, Bois Piquant, des Saules, and Cypriere Longue (Figure 10). They are partially or completely infilled at present, but continue to approximate their original width. The distal ends of some abandoned distributaries are now buried as a result of subsidence or have been destroyed by erosion. The middle portions are still associated with above-surface natural levees. Portions closest to the Mississippi River have been destroyed by human activity or are buried beneath sediments associated with the modern Mississippi River (Britsch and Dunbar 1990:20).

Point bars represent deposits formed during lateral accretion. These deposits occur due to deposition and infilling on the inside or convex bank. In the vicinity of the study area, point bar deposits are associated only with the present course of the Mississippi River (Britsch and Dunbar 1990:20).

Inland swamps occur in poorly drained areas bordering natural levee ridges. They receive fresh water and sediment during overflow associated with seasonal flooding. At those times, fine-grained sediments are deposited, and these form thick clay sequences. Inland swamps are concentrated along the Mississippi River and near the largest abandoned distributaries in the northern and central portions of the study area. Elevation generally is approximately 0.3 to 0.9 m above the surrounding marsh. Analysis of cores indicates that inland swamps represent only a minor element in the geomorphic environment of the study area (Britsch and Dunbar 1990:20-21).

Much of the study area is occupied by fresh water marsh, a nearly flat expanse where only grasses and sedges grow. Marsh deposits are largely the result of organic sedimentation that occurs as plants die and are buried. Peats, organic oozes, and humus are deposited during this process. Although marsh deposits are subsiding, surface elevation is maintained at a relatively constant level due to vegetative growth and sedimentation. The result is that marsh deposits thicken. If the rate of subsidence exceeds that of marsh growth, however, the surface is eventually inundated. Soil cores indicate that most of the fresh water marsh in the study area is "floating marsh" (flotant) which consists of a vegetative mat underlain by muck or organic ooze which grades to clay with increasing depth (Britsch and Dunbar 1990:21-22).

Crevasse splays occur at the distal ends of crevasse channels. They are composed of coarse-grained sediments which are deposited in triangular or semi-elliptical formations. Numerous anastomosing or interconnecting small channels radiate outward from the splays. The largest crevasse splay mapped in the study area is that associated with the 1884 Davis Crevasse. This splay is approximately .9 m thick near the river, and covers approximately 5.2 sq km (Britsch and Dunbar 1990:22).

Subsurface Environments of Deposition

Britsch and Dunbar (1990:22-25) also identified evidence of several subsurface environments of deposition once active in the vicinity of Davis Pond. These are

represented by interdistributary deposits, intradelta deposits, prodelta deposits, and Pleistocene age nearshore-gulf deposits.

Sediments are deposited in low areas between active distributary channels during floods which overtop the channels' natural levees. The coarsest sediments are deposited on the natural levees, while finer-grained sediments, consisting of silty clay and clay, are carried farther away and settle out as interdistributary deposits. These deposits often grade upward into highly organic clays associated with marsh and swamp deposits. Analysis of cores indicates that interdistributary deposits are common in the project area. They occur at depths of 3 to 15 m below NGVD, and range in thickness from 5 to 12 m. They consist of highly bioturbated gray clays with some silt laminae, shell fragments, and minor amounts of organic debris (Britsch and Dunbar 1990:22-23).

Intradelta deposits are coarse grained sediments which occur at the mouths of distributary channels. At these locations, coarse sediments are deposited on the mouth bar crest or as fans. During progradation, the distributary cuts through or splits around the bar, after which the process is repeated in each of the smaller, branching channels. Intradelta deposits interfinger and merge with interdistributary deposits. In the study area, they consist primarily of clean sands and silty sands. Analysis of soil cores indicates that one possible lobe in the study area is coincident with the network of abandoned distributaries (Britsch and Dunbar 1990:23).

Prodelta deposits are the result of waves of sedimentation that preceded the seaward advances of the various delta complexes that form the Mississippi River Deltaic Plain. They lie directly on Pleistocene deposits, and underlie interdistributary and intradelta deposits. The upper surface is generally about 15 m below NGVD, and thickness is 2 to 10 m (Britsch and Dunbar 1990:25).

Pleistocene deposits underlie the entire study area, and were probably formed in an estuarine or nearshore-gulf depositional environment. The Pleistocene surface lies at depths ranging from 17 to 21 m below NGVD (Britsch and Dunbar 1990:25).

Regional Geomorphic Development

Louisiana's deltaic plain was created by progradation of a series of Mississippi River courses and deltas. The Mississippi River has repeatedly built major delta lobes,

and these were subsequently abandoned. After abandonment, marine transgression occurs due to compaction and subsidence. In recent times, human activity has accelerated the rate of land loss. Prior to that activity, there was an overall gain in the size of the coastal plain in southeast Louisiana (Britsch and Dunbar 1990:25-26).

During the last 7,000 years, a series of delta complexes formed. These complexes, beginning with the oldest, were the Maringouin, Teche, St. Bernard, Lafourche, and the Plaquemine-Modern. Their locations are shown in Figure 11. The estimated ages of these complexes, and the series of lobes of which each was comprised (Frazier 1967), are shown in Figure 12.

Geomorphic Development of Davis Pond

In overview, geomorphic development in the vicinity of Davis Pond is the result of deltaic sedimentation since about 4700 BP. Sediments were deposited as a result of crevasses of the Mississippi River. As a result, three distributary systems developed. These systems were Bayou Cypriere Longue (ca. 3500 BP to 2700 BP), Bayou Verret (ca. 2500 BP to 2200 BP), and Cousin Canal (ca. 2000 BP to 1700 BP). They all developed as a result of crevassing at the same approximate location on the Mississippi River (Britsch and Dunbar 1990:40). Development of each system is summarized in the paragraphs below.

At ca. 4700 BP, the river's flow was carried by Bayou Lafourche and the approximate present-day course of the Mississippi River. The latter, representing Frazier's (1967) Lobe 3 of the St. Bernard Delta Complex, received almost full flow. Sediments were deposited in an easterly direction. This channel is thought to have been within 1.6 km of the present course of the river, but its exact position is unknown. The Davis Pond area received primarily prodelta deposits, with the exception of areas near the river channel where point bar deposits are present (Britsch and Dunbar 1990:27-30). The probable configuration of land and water for the period 4700 to 3700 BP is shown in Figure 13.

The Bayou Terre Aux Boeufs delta lobe, representing Frazier's (1967) Lobe 5 of the St. Bernard delta complex, began prograding to the east of the study area approximately 4000 BP. Interdistributary sediments now began to be deposited atop earlier prodelta sediments. The upper surface reached sea level, and a marsh was established. This marsh surface was extensive. However, borings indicate that it is relatively thin, indicating it was only in

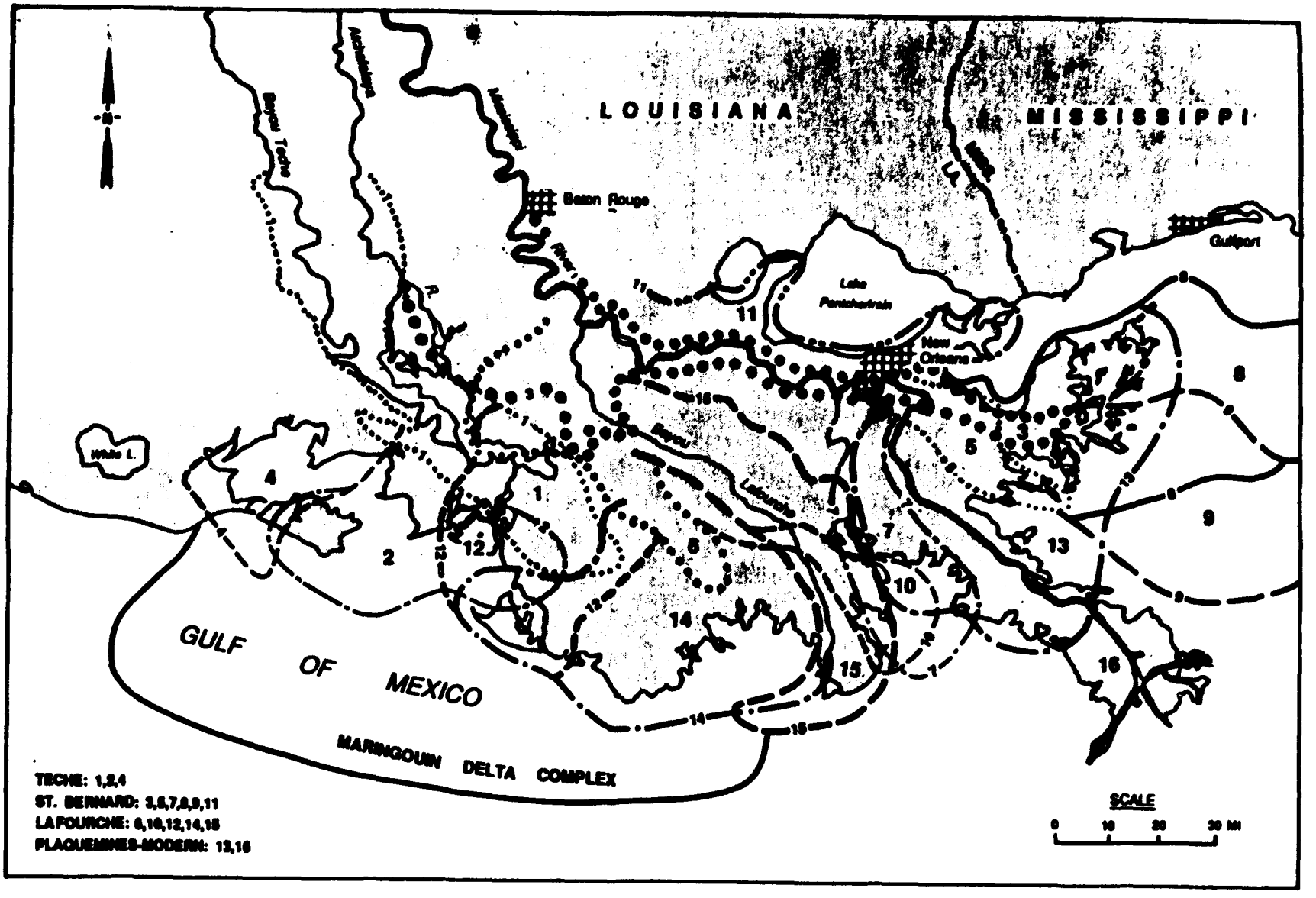


Figure 11. Delta lobes formed by the Mississippi River in the past 7,000 years (from Frazier 1967 in Britsch and Dunbar 1990:28).

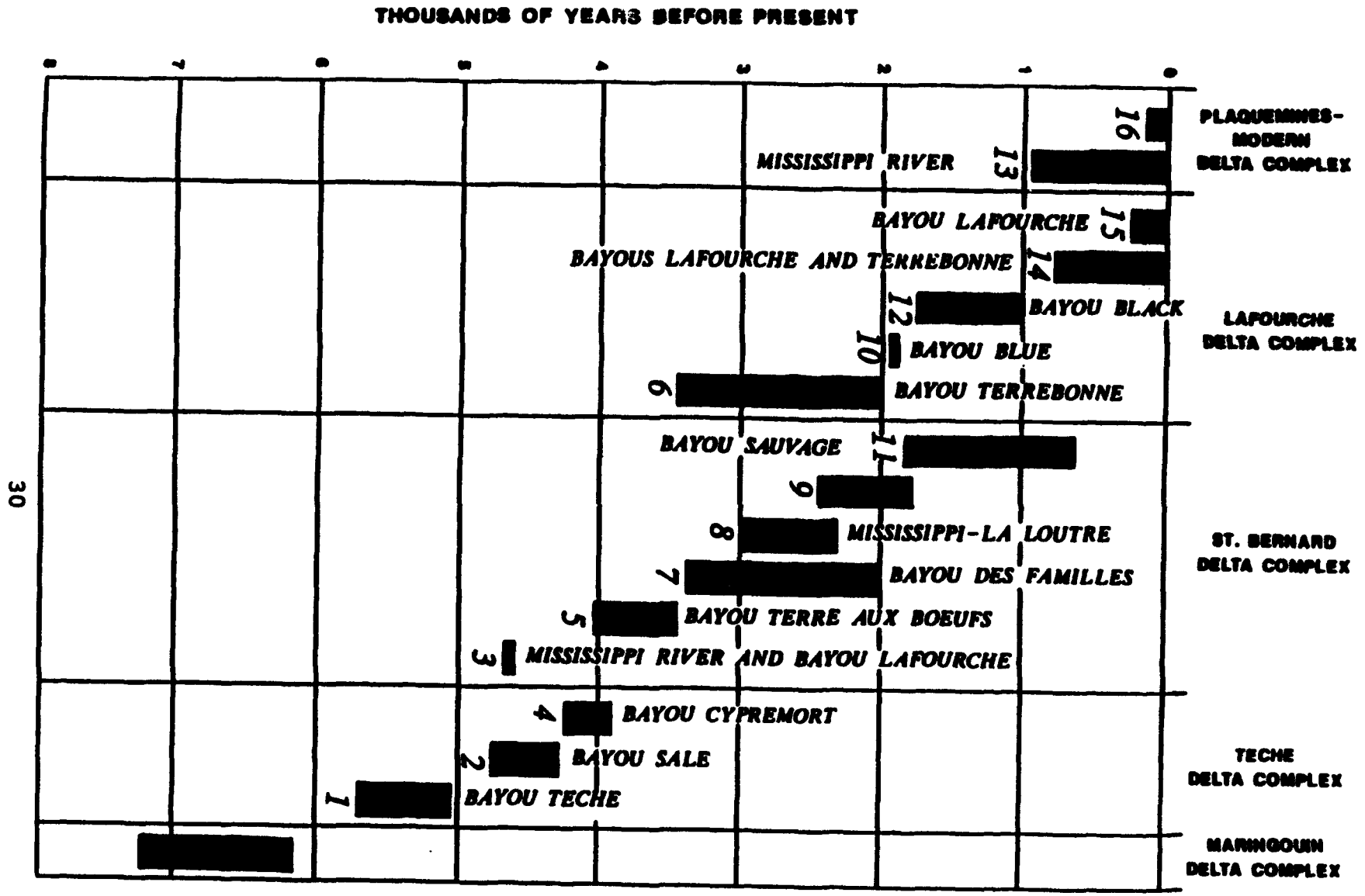


Figure 12. Delta chronology (from Frazier 1967). See Figure 11 for locations of numbered lobes (from Britsch and Dunbar 1990:29).

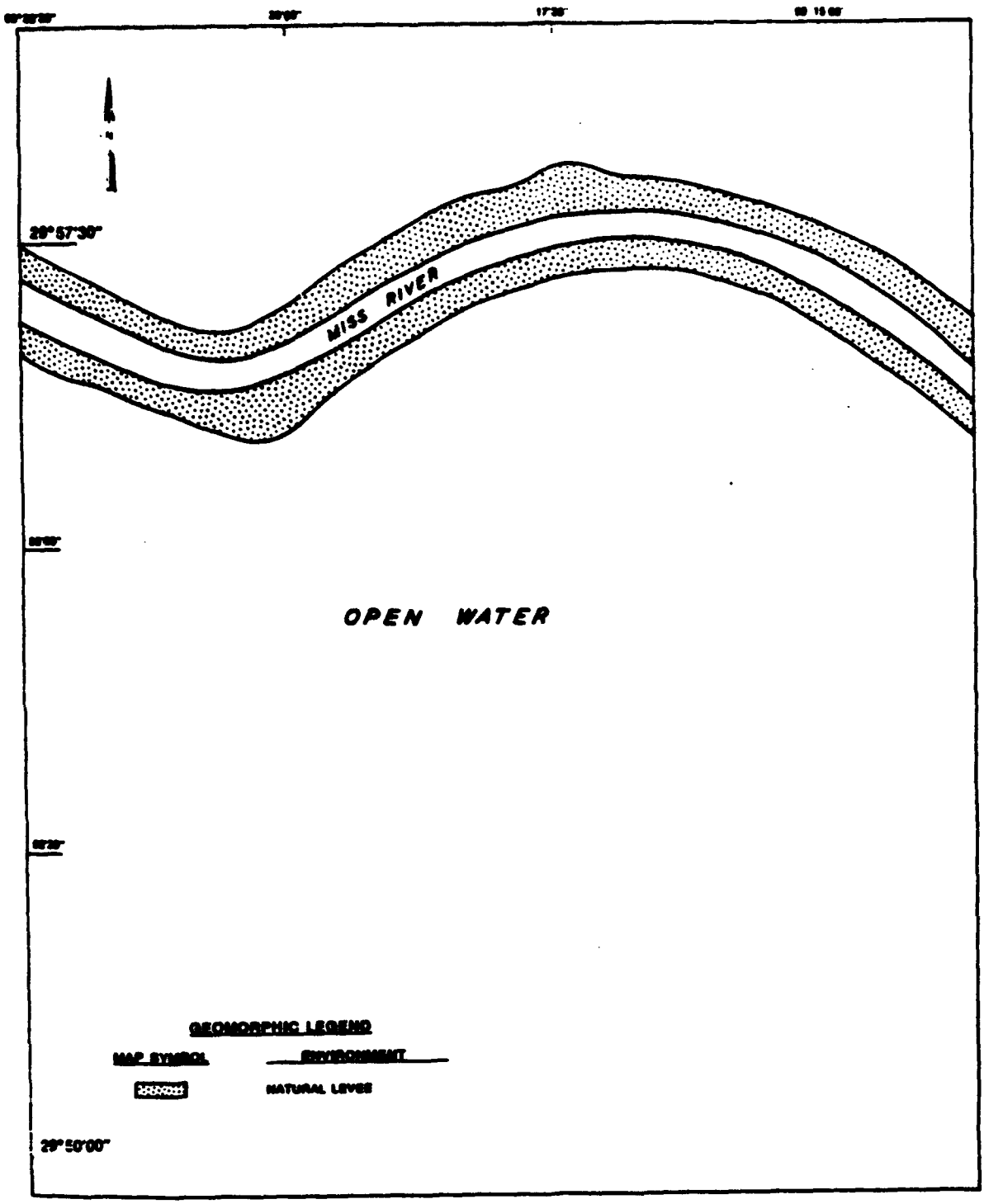


Figure 13. Interpreted geomorphic setting of the study area between 4,700 and 3,700 years BP (from Britsch and Dunbar 1990:31).

existence for a short period of time, possibly less than 200 years (Britsch and Dunbar 1990:30-33). The probable configuration of land and water for the period 3700 to 3500 BP is shown in Figure 14.

The Bayou Cypriere Longue distributary system began to develop in a south and southeast direction about 3500 BP. The system originated as a crevasse on the Mississippi River course. The crevasse was open long enough (ca. 700 to 800 years) to establish the dense network of distributary channels shown in Figure 15. Radiocarbon dates indicate that the system was active from ca. 3500 BP to ca 2700 BP. In some areas, as much as 4.5 m of natural levee soil was deposited. Two other distributaries developed during this same period. These were the Bayou des Familles lobe to the east, and the Bayou Petit system which originated in the same location as the Cypriere Longue system but which flowed to the southwest (Britsch and Dunbar 1990:33-35).

The Bayou Verret distributary system began to develop in the study area about 2500 BP. It originated as a crevasse at the same location on the Mississippi River and its flow reoccupied portions of the Cypriere Longue system. In the northern portion of the study area, channels extended in an easterly direction into the marsh area which bordered the northern and eastern portion of the Cypriere Longue system. Progradation continued to the east until it turned abruptly south and southeastward. This new system was active for only 200 or 300 years as evidenced by the thinner natural levees. The configuration of land and water during this period (ca. 2500 BP to 2000 BP) is shown in Figure 16. During this same period, the Grand Bayou system developed. It was located between the Bayou Petit and Bayou Cypriere Longue systems. A radiocarbon sample from peat at the base of the Grand Bayou natural levee provided a date of ca. 2500 BP (Britsch and Dunbar 1990:35-37).

Flow continued into the study area after development of the Bayou Verret system, but for approximately 200 years distributary systems were not actively advancing. About 2000 BP, the Cousin Canal system began to develop in a southwesterly direction as a result of crevassing on part of the Bayou Cypriere Longue system. Channels related to this later system cut across older channels at right angles. The system was probably initially active for only 200 to 300 years, but continued to receive some flow during later periods (Britsch and Dunbar 1990:37-39). The configuration of land and water during this period (ca. 2000 to 1700 BP) is shown in Figure 17.

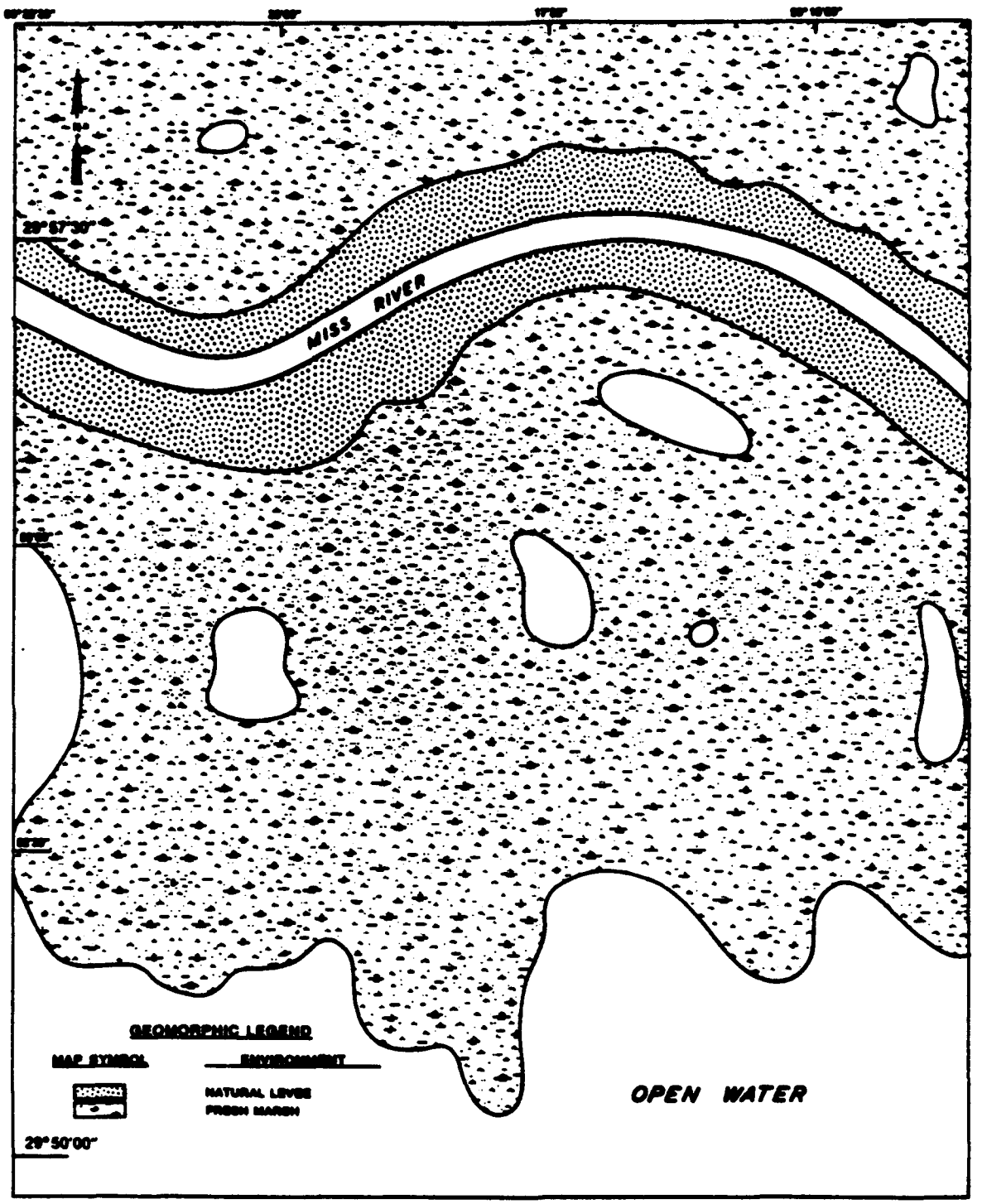


Figure 14. Interpreted geomorphic setting of the study area between 3,700 and 3,500 years BP (from Britsch and Dunbar 1990:32).

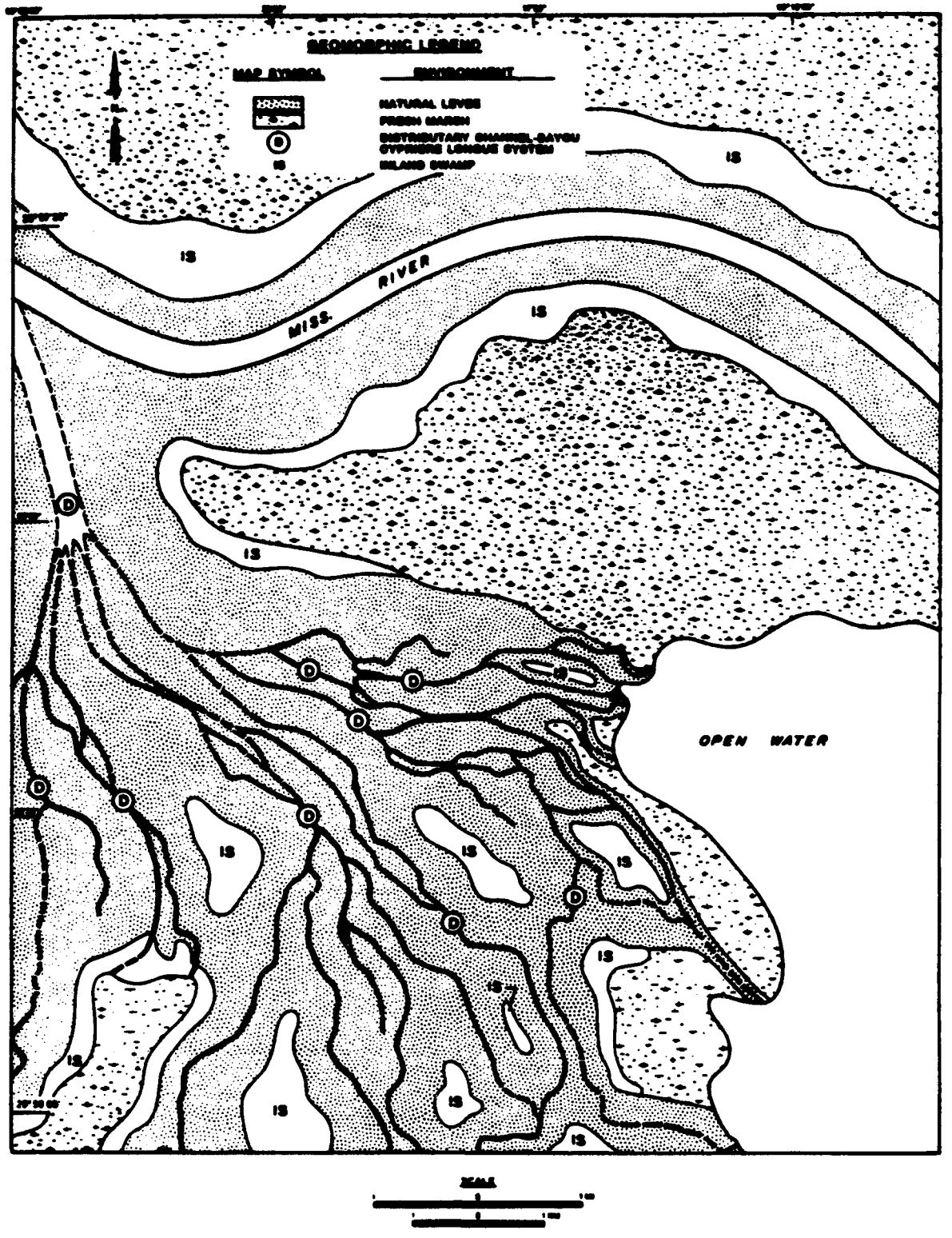


Figure 15. Interpreted geomorphic reconstruction of the study area between 3,500 and 2,500 years BP (from Britsch and Dunbar 1990:34).

2500 - 2000 YEARS BP

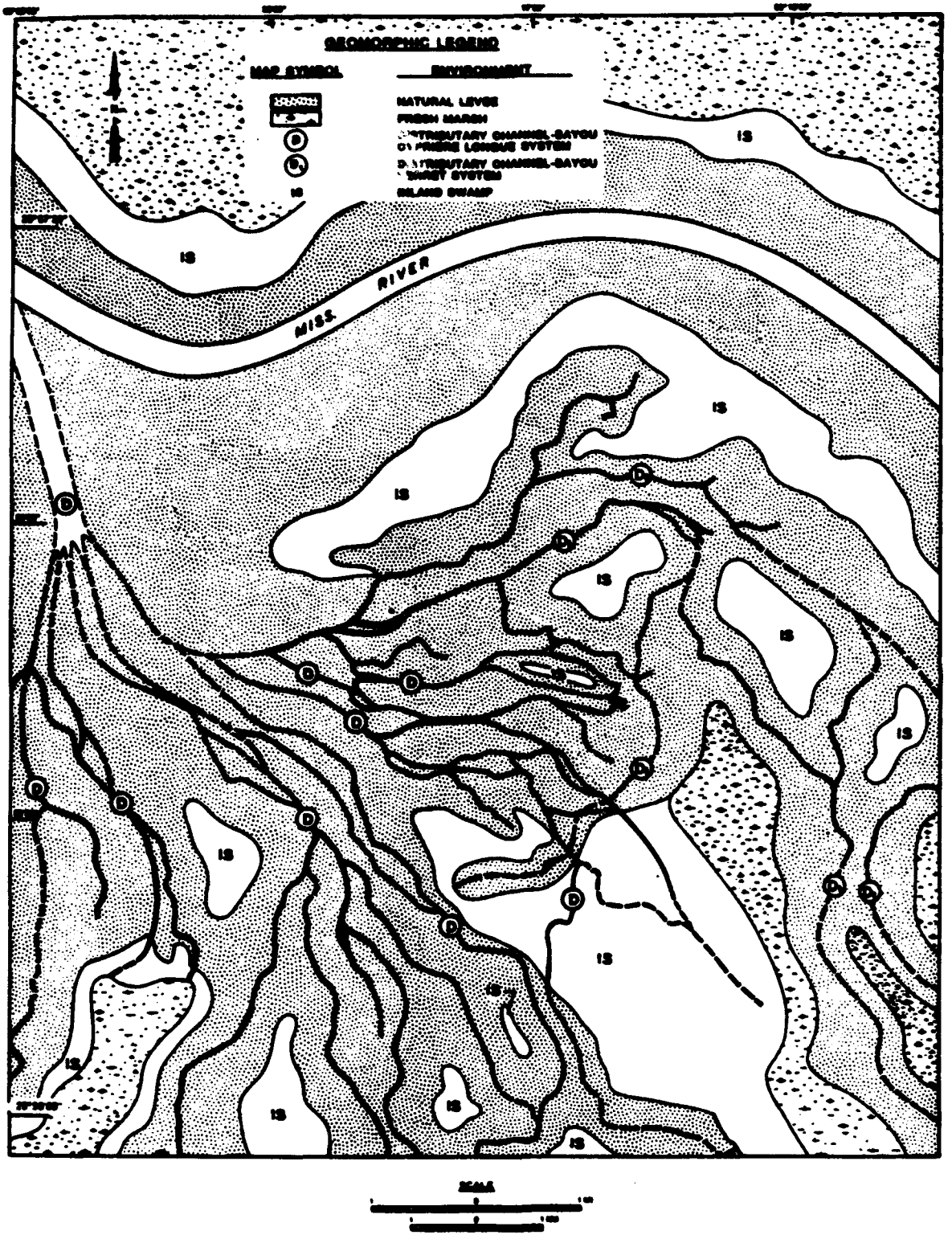


Figure 16. Interpreted geomorphic reconstruction of the study area between 2,500 to 2,000 BP (from Britsch and Dunbar 1990:36).

2000 - 1700 YEARS BP

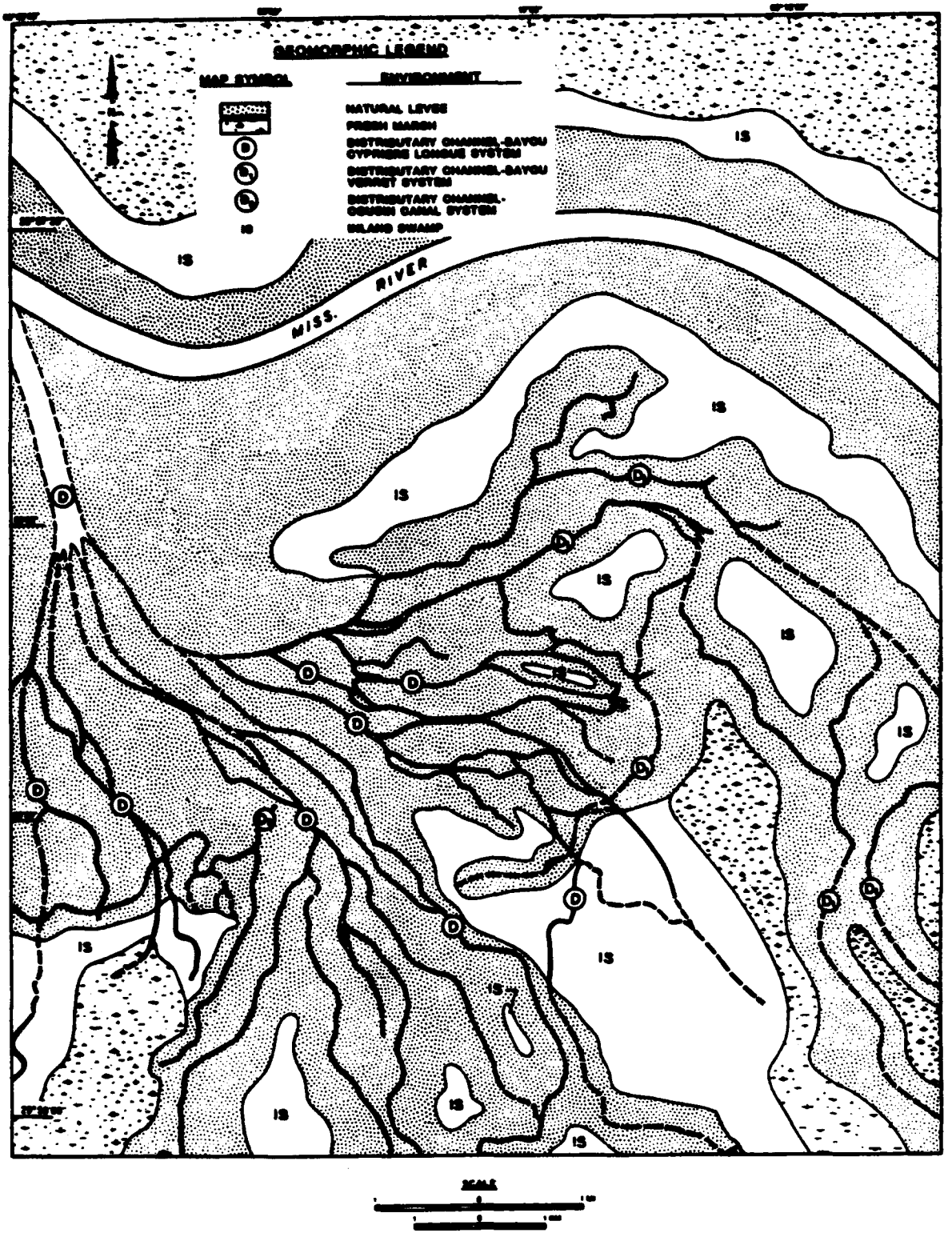


Figure 17. Interpreted geomorphic reconstruction of the study area between 2,000 to 1,700 years BP (from Britsch and Dunbar 1990:38).

Since approximately 1700 BP, no new distributary systems have developed in the study area. However, the previously developed systems continued to receive some flow which added to natural levee and swamp deposits. A crevasse at one of the Fortier plantations resulted in the loss of the 1850 sugar cane crop at Davis Plantation and at other plantations in the area. It is possible that some of the runoff from this flood event was carried in the distributary system discussed in this chapter, although the actual break in the levee was several miles downriver. The last crevasse that affected the area was in 1884, and was termed the "Davis Crevasse." It originated at the location of a rice flume. Since that time, artificial levees have restricted flow into the various systems. However, subsidence has been limited somewhat by the shallow Pleistocene surface which is very dense and has a low compaction rate (Britsch and Dunbar 1990:39-40). The configuration of land and water for the period 1700 BP to present is shown in Figure 18.

Relationship Between Geomorphology and Site Location

The Pump Canal Site (16SC27) was known to be located very close to one area which was surveyed as part of this project. Britsch and Dunbar (1990) indicated that the site was associated with an abandoned distributary that was a branch of Bayou des Saules. The channel is part of the Bayou Cypriere Longue system (above) which was active between 3500 and 2700 BP. A carbon date and analysis of ceramics from previous excavations at 16SC27, as well as those reported here, indicate that initial occupation of the site postdated formation of the Cypriere Longue, Bayou Verret, and Cousin Canal systems. These data are consistent with Saucier's (1963) suggestion that Native Americans in southeastern Louisiana occupied natural levees associated with channels that had already achieved maximum development and were partly abandoned. Saucier (1963) hypothesized that the lower reaches of partially abandoned streams were desirable site locations because flood frequency was lower, fresh water was available, and the location allowed convenient access to swamps, marshes, and fresh to brackish water lakes.

Subsidence rates and sedimentation rates are important factors for predicting the occurrence of buried sites. Subsidence rates are generally about .1 cm/year except along the northwest shore of Lake Cataouatche where one core indicated the rate was .23 cm/year. Sedimentation rates ranged from 0.06 to 0.30 cm/year until the modern levee system curtailed flow from the Mississippi River. Sedimentation rates depend on environmental setting, and are greatest adjacent to channels during active periods. In

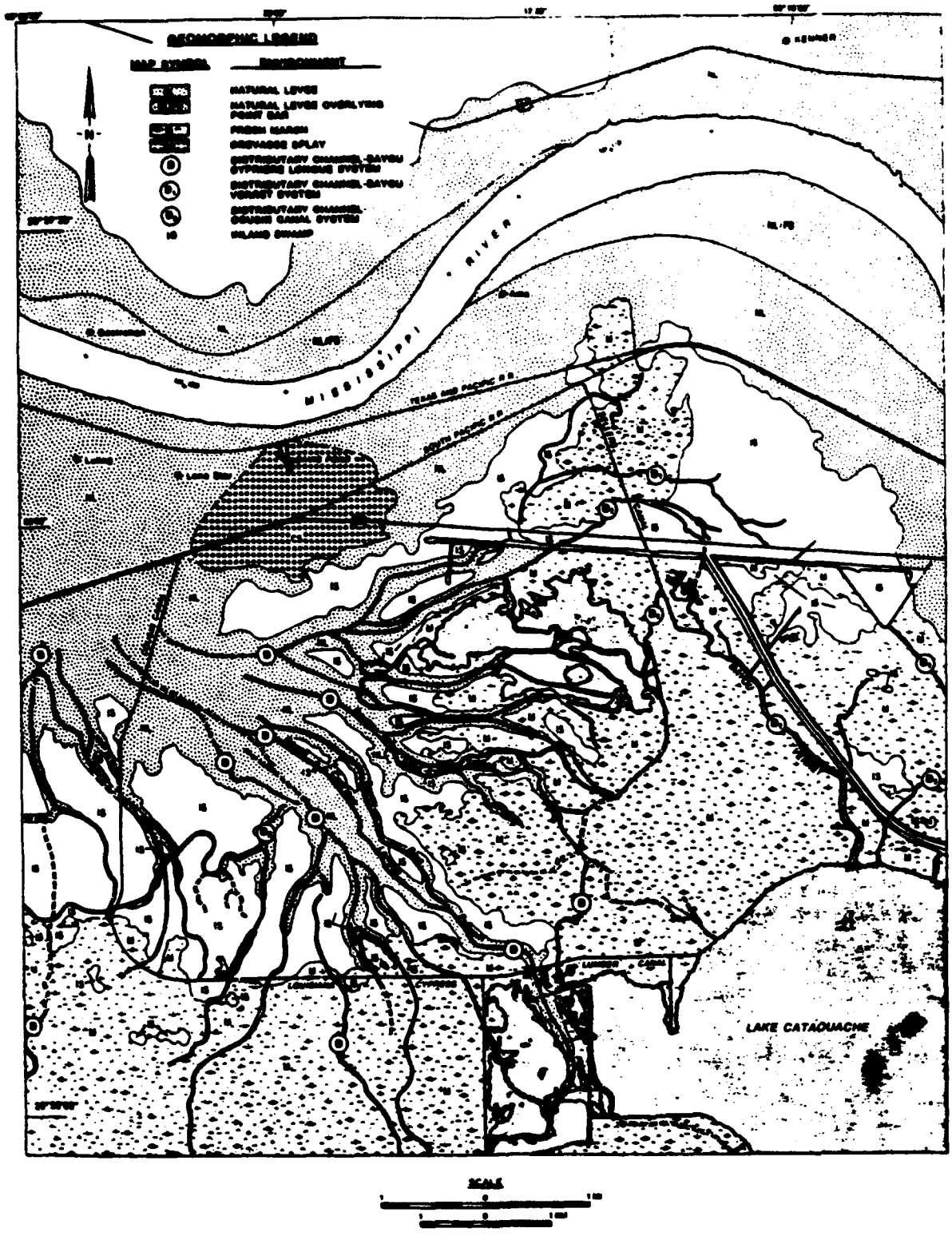


Figure 18. Geomorphology of the Davis Pond project area as it occurs today (Britsch and Dunbar 1990:41).

general, the sedimentation rate has been greater than the subsidence rate in the study area. Evidence for this derives not only from soil cores but also from the extent of land compared to water. Sedimentation rates almost certainly exceeded subsidence rates until the early twentieth century when overbank deposition from the Mississippi River was successfully prevented. The types of landforms present, as well as the sedimentation and subsidence history of the area, suggested to Britsch and Dunbar (1990) a high potential for buried archaeological sites. Geomorphological factors which would facilitate burial of prehistoric sites prevail in areas adjacent to the Mississippi River, along abandoned distributary channels, and on the flanks of natural levees (Britsch and Dunbar 1990:44-53).

Figure 19 compares the geomorphic chronology of distributary development in the vicinity of the present study area with the regional culture history. Based on radiocarbon dating of the various distributary systems in the study area, the earliest cultural component that could be present would represent the Poverty Point period. It was during that period that the Bayou Cypriere Longue system developed and prograded. The Bayou Verret system developed during the subsequent Tchula period and the Cousin Canal system developed during the Marksville period (Britsch and Dunbar 1990:57). These and subsequent periods that make up the local culture chronology are discussed briefly in Chapter 4.

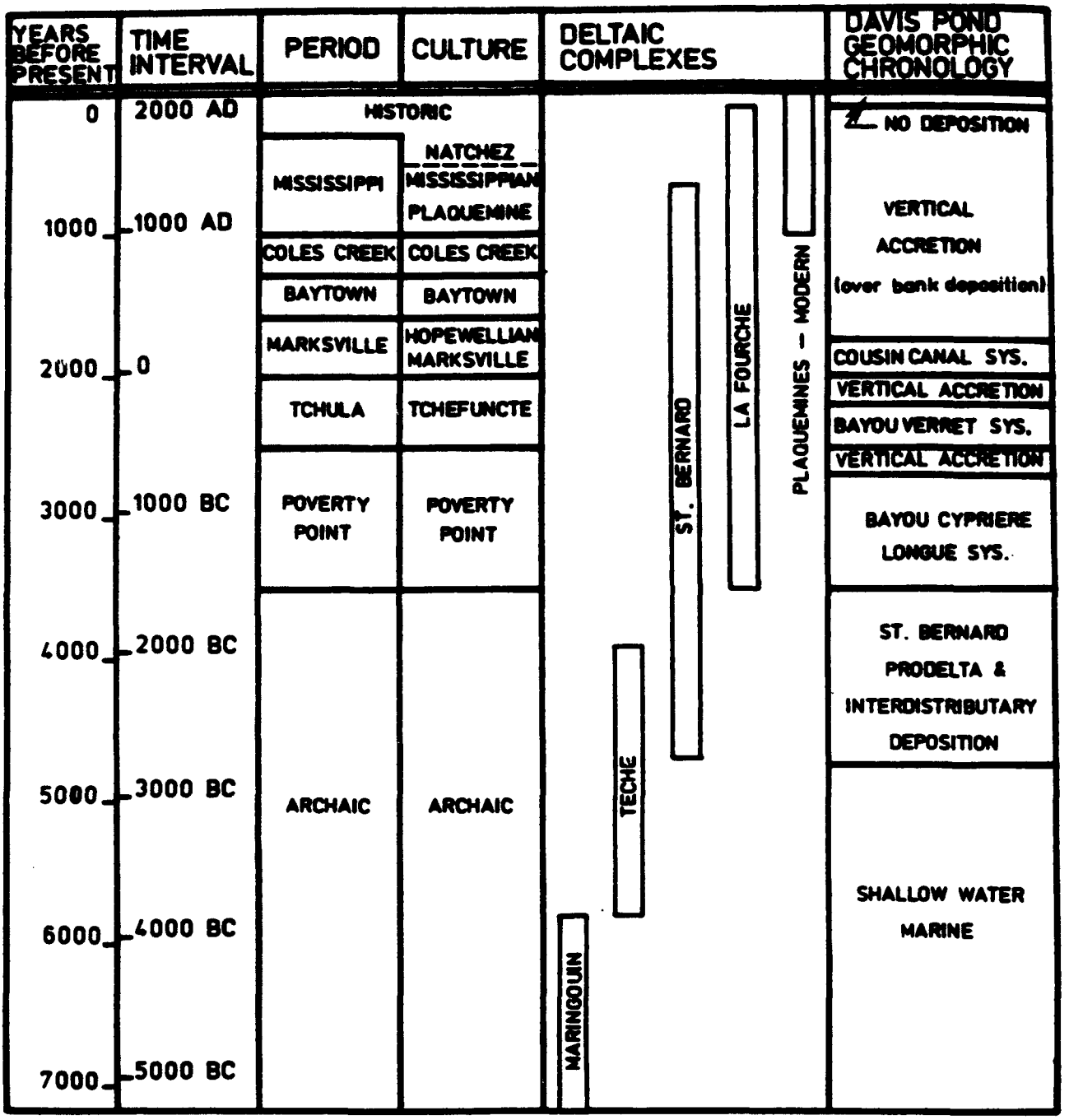


Figure 19. Comparison of Davis Pond geomorphic chronology with the cultural components recognized for the deltaic plain (modified after Weinstein and Gagliano 1985, in Britsch and Dunbar 1990:60).

CHAPTER 3
NATURAL SETTING OF THE DAVIS POND AREA

Geographic and Physiographic Setting

The Davis Pond area lies within the Barataria Basin. The basin encompasses approximately 400,000 hectares (990,000 acres). It is approximately 129 kilometers (80 miles) long. Lake Des Allemands lies near its headwaters, while the Gulf of Mexico is the Basin's southern terminus. To the north and east, the Mississippi River natural levee forms the boundary of the Basin, while the natural levee associated with Bayou Lafourche forms the western boundary. Several large, shallow lakes are situated within the Basin. These lakes are interconnected by bayous and surrounded by marshland. The marshland itself is bordered by higher ground that is the result of alluvial deposition from formerly active Mississippi River distributaries. In addition, natural levees associated with smaller distributaries are present within the marsh (White et al. 1983:101-102, see also Chapter 2 of this report).

Barataria Basin is a broad, low-lying region characterized by a set of ecological parameters which are integrated into a dynamic ecosystem with enormous biological productivity. The prime integrating feature of this ecosystem is water. Primary units of the system are forests, freshwater marshes, brackish marshes, saline marshes, and the offshore area (Bahr and Hebrard 1976:1-3).

Climate

The Davis Pond area is typified by long, hot, and humid summers. Winters are relatively warm, but occasional incursions of cool air do occur (McDaniel 1987:2-3). The mean annual temperature is about 21° Centigrade (70° Fahrenheit), with a mean low in January averaging 11° Centigrade (52° Fahrenheit) and a mean high in July of about 29° Centigrade (84° Fahrenheit). The growing season exceeds 260 days (White et al. 1983:103).

The area is located within the Subtropics, and its weather is strongly influenced by the nearby Gulf of Mexico. Rainfall exceeds 160 cm (64 inches) annually. Periods of greatest rainfall generally occur in August and September. October is, on average, the driest month (White et al. 1983:103). Hurricanes and storm surges occur intermittently, and these have profound effects on floral, faunal, and human communities within the Barataria Basin.

Plant Communities

Elevation of the land dramatically affects distribution and composition of plant communities within the Barataria Basin. Differences of only a few centimeters of elevation are associated with striking changes in vegetation. This is largely the result of the effects of soil saturation (White et al. 1983:103).

Upland forests were historically confined to only the highest areas. At lower elevations, bottomland hardwood forests, cypress-tupelo swamp forests, and marshes were present. An intermediate swamp may have been present at some locations between these two communities. Large tracts of marsh occur in surrounding areas (White et al. 1983:102).

Prior to cultivation and urbanization of the Mississippi River delta region, upland forests would have occupied most of the natural levee associated with the river itself. Similar plant communities remain present on the Pleistocene terrace north of Lake Pontchartrain. Natural climax vegetation in such forests is dominated by mixed deciduous and evergreen trees that are less tolerant of flooding than are bottomland hardwood species. Woody species in an elevated natural levee forest would have included oaks (*Quercus virginiana, Q. alba, Q. nigra*), shagbark hickory (*Carya ovata*), hackberry (*Celtis laevigata*), sweetgum (*Liquidambar styaciflua*), pecan (*Carya illinoiensis*), magnolia (*Magnolia spp.*), and various pines (Bahr et al. 1983:82).

Bottomland hardwood forests are dominated by the water oak (*Quercus nigra*). Subdominants include the sweet gum (*Liquidambar stryaciflua*), hackberry (*Celtis laevigata*), and live oak (*Quercus virginiana*). Other forest species include the box-elder (*Acer negundo*), honey-locust (*Gleditsia triacanthos*), American elm (*Ulmus americana*) and the Nuttall oak (*Quercus nuttallii*). The most common shrub species are palmetto (*Sabal minor*) and green haw (*Crataegus viridis*), but thickets of possum-haw (*Ilex decidua*) also occur. Within forest gaps, elderberry (*Sambucus canadensis*) and French-mulberry (*Callicarpa americana*) occur. Introduced species such as the camphor tree (*Cinnamon camphora*) are also present (White et al. 1983:103-104).

Vines are found throughout the bottomland hardwood forest, and few trees are observed without them. The most common of these include poison-ivy (*Rhus toxicodendron* var. *vulgaris*), Virginia creeper (*Parthenocissus quinquefolia*), supple-jack (*Berchemia scandens*), pepper-vine (*Vitis*

rotundifolia), muscadine (*Vitis rotundifolia*), and hemp-weed (*Mikania scandens*) (White et al. 1983:104).

The cypress-tupelo swamp forests, located a greater distance from distributaries, are dominated by bald cypress (*Taxodium distichum*) in areas where it has been re-established after logging. Water tupelo (*Nyssa aquatica*) is often either a sub- or co-dominant species. Red maple (*Acer rubrum* var. *drummondii*) and ash trees (*Nyssa aquatica*) represent the other sub-dominants in this community. Shrubs include wax-myrtle (*Myrica cerifera*) and button-bush (*Cephalanthus occidentalis*), while vines are cat-briar (*Smilax* spp.), trumpet-creeper (*Campsis radicans*), and poison ivy. Herbaceous ground cover includes smart-weed (*Persicaria punctata*), alligator-weed (*Alternanthera philoxeroides*), swamp potato (*Sagittaria lancifolia*), and water hyacinth (*Eichhornia crassipes*) (White et al. 1983:105).

An intermediate swamp forest sometimes occurs between the bottomland hardwood forest and the swamp forest. The intermediate forest can be extensive due to the gradual slope of the land. Swamp red maple, American elms, and water oaks are common here. Palmettos create a dense understory, which is nearly impenetrable in some locations (White et al. 1983:105).

The other predominant plant community within the Barataria Basin occurs in the marsh areas. Marshes are categorized according to their degree of salinity, and the areas covered by the various marsh communities have certainly changed through the period of prehistoric occupation due to variation in fresh water influx compared to salt water intrusion.

The ecological distinction between a swamp and a marsh is the absence of trees in the latter. Marsh soils are peat and muck, and elevation of these is less than one meter above mean sea level in the vicinity of the study area. This elevation is comparable to that of Lake Salvador. Cord grass (*Spartina patens*) is dominant in the brackish or intermediate marsh, while swamp-potato (*Sagittaria lancifolia*) predominates in freshwater marsh. Numerous other species co-occur with these (White et al. 1983:106-107).

Ethnobotany

A floristic inventory of the Coquilles site (16JE37), located in the eastern portion of Barataria Basin, recorded 65 different plant species, all of which are endemic to

North America (Dunn 1983). There is documentary evidence for utilization of 57 of these species (87.7%) by Southeastern Indian tribes. These plants can be categorized according to their uses: (1) food and beverage plants; (2) curative and medicinal plants; (3) plants used for construction and utilitarian items; and (4) plants used for textiles, dyes, and paints. Some plants had multiple uses. Although there is no evidence that all of these plants were actually used by occupants at Coquilles and other sites, their availability indicates that the floral resource base in the area was both rich and diverse (Dunn 1983:351,356). In addition to these plant resources found along the natural levee, other species endemic to nearby marsh and lakeshore environments were undoubtedly utilized.

Fish

The Barataria Basin hosts a diverse assemblage of fish species. Many marine species penetrate inland to freshwater habitats, while freshwater species are sometimes found in more saline environments. Also, the lower reaches of freshwater streams probably serve as nursery areas for the young of some marine species (Bahr and Hebrard 1976:69).

Reptiles and Amphibians

The Barataria Basin hosts at least 26 reptilian species, of which 14 are snakes. The American alligator (*Alligator mississippiensis*) and various species of turtle are common. At least 14 species of amphibians occur or are likely to occur in the Basin. Most of these are frogs and toads (Bahr and Hebrard 1976:74-77).

Birds

At least 216 species of birds are known to occur in the Barataria Basin. Approximately 43% of these are passerines. Some species of this group are permanent residents, while others are only present seasonally. The remainder of the 216 species are predominantly waterfowl, many of which are migratory. Because the Basin sits at the terminus of the Mississippi flyway, which is the largest waterfowl migratory route in North America, birds represent a potentially abundant source of food, feathers, and bone for tools (Bahr and Hebrard 1976:6-7,78-115). However, at the Coquilles site (16JE37) within the eastern portion of Barataria Basin, surprisingly few remains of birds were recovered (Beavers 1982, DeMarcay n.d.). Analysis of faunal remains from Pump Canal (16SC27) resulted in similar findings (Misner and Reitz, this volume).

Mammals

Important fur-bearing species present within the Basin are the muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), mink (*Mustella vison*), and otter (*Lutra canadensis*). Nutria (*Myocastor coypus*) are a recent introduction and were not present during the prehistoric or early historic periods.

Other indigenous mammals known to occur in the area include the Virginia opossum (*Didelphis virginiana*), the swamp rabbit (*Sylvilagus aquaticus*), the fox squirrel (*Scirus niger*), the fox (*Vulpes fulva*), the bobcat (*Lynx rufus*), the beaver (*Castor canadensis*), the civet cat or spotted skunk (*Spilogale putoris*), and the white-tailed deer (*Odocoileus virginianus*). In addition, several species of terrestrial rodents and bats are endemic (Bahr and Hebrard 1983:118-126). The mammalian faunal inventory would have been even more extensive during the prehistoric period (Speaker et al. 1986:26-29).

Rangia cuneata

Shellfish remains are common at almost all of the recorded prehistoric sites located in the Barataria Basin. The predominance of *Rangia cuneata* shells characterizes many prehistoric period sites throughout southern Louisiana. This brackish water mollusc represented a widely utilized resource for pre-European occupants of the region (Byrd 1976a). The virtual absence of freshwater molluscs at sites in southern Louisiana contrasts markedly with the abundance of *Rangia*. However, small numbers of shells representing the freshwater genus *Unio* and the saltwater genus *Ostrea* have been reported at some prehistoric sites within the Barataria Basin (Gagliano et al. 1979).

Byrd (1976a) examined the nutritional and caloric value of the *Rangia* in order to determine its relative importance to prehistoric diet. She notes that a 100 pound deer might be expected to contribute 50 pounds of edible meat. In order to provide the equivalent 50 pounds of *Rangia*, it would be necessary to harvest 25,300 clams. That would produce 50,600 clam shells which, based on clam size at the Morton shell midden, would represent a volume of 11.8 cubic feet. Thus, clams provide only relatively small amounts of meat per volume of discarded shell (Byrd 1976a:25).

In addition to providing only a small amount of meat, *Rangia* have relatively low nutritional values compared to other food items utilized during the prehistoric period. This is dramatically illustrated by Table 1 which compares

Table 1. Comparative Nutritional Value of 100 Grams of Rangia (from Byrd 1976a:27)

	Protein	Fat	Carbo-hydrate	Calories
Clam (raw, meat only)	12.6	1.6	2.0	76
Oyster (raw)	8.4	1.8	3.4	66
Deer (raw, lean meat)	21.0	4.0	0	126
Raccoon (roasted)	29.2	14.5	0	255
Duck (raw)	21.3	5.2	0	138
Catfish (raw)	17.6	3.1	0	103
Grape (raw)	1.3	1.0	15.7	69
Persimmon (raw)	0.8	0.4	33.5	127
Hickory (nut)	13.2	68.7	12.8	673
Pumpkin (raw)	1.0	0.1	6.5	26
Corn (modern, field, raw)	8.9	3.9	72.2	348

the protein, fat, carbohydrate and caloric content contained in 100 grams of various food items (Byrd 1976a:27).

As the table demonstrates, other kinds of meat yield greater amounts of protein than does *Rangia*. Its fat content is lower than the other food items presented with the exception of grapes, persimmons, and pumpkin. Carbohydrate yield is somewhat higher than other meats, but it is low compared to plant foods. And finally, only oyster, grape, and pumpkin have a lower caloric value. The caloric equivalent of a 100-pound deer would be about 42,000 clams, representing 19.6 cubic feet of clam shells. The volume of *Rangia* shells in a prehistoric midden is, therefore, disproportionate when the contribution of this food is compared to that of other food types that leave fewer and more compact remains (Byrd 1976a:27-28).

Despite the fact that *Rangia* are relatively low in food value, they were exploited throughout the prehistoric period in coastal Louisiana. This exploitation may be due to the fact that little risk or expenditure of energy is involved in obtaining *Rangia*. In some brackish waters, these clams are relatively abundant. They can be gathered by hand in shallow waters and by rake in deeper waters. So long as large, dense clam beds are available, little energy expenditure is necessary to obtain them (Byrd 1976a:28).

In addition, there are other possible reasons for the apparently heavy exploitation of *Rangia* by prehistoric peoples. Contributions this clam might have made to trace element intake and other aspects of diet remain undetermined. Also, the large volume of clam shells that result from clam harvests represent an important source of "fill" in low-lying areas subject to flooding. All of southern Louisiana represents such an area. It is possible that Native Americans were deliberately using *Rangia* shells to provide greater topographic relief on portions of the natural levee and in the marsh.

CHAPTER 4
ABORIGINAL OCCUPATIONS IN SOUTHEASTERN LOUISIANA

Introduction

This chapter presents a brief overview of Native American culture history in southeastern Louisiana. Excavations conducted in and research issues specific to the Barataria Basin are discussed in greater detail in Chapter 7.

The Poverty Point Period

Few sites dated to the Paleo-Indian or Archaic Periods have been reported in southeastern Louisiana. Although land formation was occurring in the study area during the Archaic Period (Chapter 2), evidence indicates that human occupation occurred subsequent to maximum development of the distributary network. Additionally, Paleo-Indian and Archaic Period sites are likely to have been buried or destroyed by subsequent riverine processes.

The earliest known sites in the vicinity of the study area are dated to the Poverty Point Period. One of these, the Linsley Site (16OR40), is located in Orleans Parish. 16OR40 is situated on a buried natural levee associated with an earlier course of the Mississippi River. Material dredged from the subsided *Rangia* shell midden was used to define the Bayou Jasmine-Garcia Phase of the Poverty Point period (Gagliano et al. 1975:44-47). A series of radiocarbon dates and baked clay balls are evidence that date the site to the Poverty Point period (Weinstein 1978:A/23-A/25, Thomas 1982:3). Another important site representing this period and phase is the Bayou Jasmine Site. It is located near Lake Pontchartrain in St. John the Baptist Parish (Duhe 1977).

The name "Poverty Point" is derived from the type site, an area of massive earthwork construction, in northeastern Louisiana. The Poverty Point site (16WC5) is believed to have been a cultural center with trade networks and influence extending throughout the Lower Mississippi Valley. Baked clay balls known as "Poverty Point objects" are one of the important traits that mark the period. Other traits include an elaborate lapidary and microlithic industry, use of steatite vessels, and the use of exotic stone (Thomas 1982:5).

The Tchula Period

Tchula period occupations in the Lower Mississippi Valley are equated with the Tchefuncte culture. The period has been called "the early ceramic period" because, with the exception of fiber-tempered pottery, it was the interval during which initial pottery complexes appeared in the Lower Mississippi Valley. Sites are few and scattered, and there are no universal markers. However, within subareas such as South Louisiana, regional markers, primarily Tchefuncte type ceramics, are useful for recognizing period occupations (Phillips 1970:7,8,15,76).

Peoples of the Tchefuncte culture were the first to engage extensively in the manufacture of ceramics. Fiber-tempered and some grog-tempered or temperless sherds have been recovered from earlier Poverty Point contexts. These may represent primarily trade goods from the earliest pottery-making cultures to the east. The basic Tchefuncte ware is temperless or grog-tempered, with accidental inclusions of small quantities of sand and vegetable fiber. Sand-tempered wares represent a minority constituent of Tchefuncte site assemblages (Shenkel 1984:47-48).

The Marksville Period

The Marksville period is associated with a Hopewellian culture and tradition manifested throughout the Lower Mississippi Valley (Phillips 1970:7,17-18,886). The Hopewell culture's two major centers of development were in Ohio and Illinois, and date to between 200 B.C. and A.D. 400. Diffusion of aspects of the culture may have resulted from the activity of traders who established a wide-ranging network, sometimes termed the "Hopewellian Interaction Sphere."

In addition to diagnostic pottery types of the Marksville period, conical burial mounds were characteristic of the culture. Interments are generally associated with grave goods. Some of these were manufactured from exotic raw materials (Neuman 1984:142-168).

The Baytown Period

The Baytown period has been defined as the interval between the end of Hopewellian/Marksville culture and the emergence of Coles Creek culture. In the southern half of the Lower Mississippi Valley, there are no area-wide horizon or period markers (Phillips 1970:901).

The Baytown period is often referred to as the "Troyville period" by Delta archeologists. Because of the lack of diagnostic markers for the period in southeastern Louisiana, it is often assimilated with the subsequent Coles Creek period, and the two are together referred to and discussed as "Troyville/Coles Creek cultures" (e.g. Neuman 1984).

The Coles Creek Period

The Coles Creek period is the interval that begins with the emergence of Coles Creek culture in the southern part of the Lower Mississippi Valley and ends with the establishment of "full-blown" Mississippian culture in the northern part of the Valley (Phillips 1970:18). Although it appears to represent a population zenith in the eastern delta province, many sites tentatively classified as Coles Creek may actually be from the Baytown period (Wiseman et al. 1981:3/5).

Coles Creek culture was characterized by small ceremonial centers with mounds. These were surrounded by villages of varying size. The culture developed in the area between the mouth of the Red River and the southern part of the Yazoo Basin. Its influence filtered into the delta region of southeastern Louisiana (Brown 1984:95).

Mounds associated with the Coles Creek culture generally are larger and exhibit more construction stages than those associated with the earlier Marksville culture. A more significant difference is that Coles Creek mounds are pyramidal and flat-topped, and they were used as substructures for religious and/or civic buildings. In contrast, Marksville peoples generally built conical burial mounds (Neuman 1984:167).

The Mississippi Period

The beginning of the Mississippi period is marked by the appearance of emergent Mississippian culture in the northern part of the Lower Mississippi Valley and Plaquemine culture in the southern part (Phillips 1970:18-19). Plaquemine culture sometimes exhibits classic Mississippian developments such as temple mound construction. However, archeological evidence suggests that Plaquemine culture emerged from a Coles Creek base and was later influenced by Mississippian intrusions from further up the Mississippi River Valley. Multi-mound construction and artifact assemblages are evidence that link the two. Absence of European trade goods indicates that the Plaquemine culture reached its zenith prior to European contact (Neuman

1984:258-259). Sites dating from the contact period represent a Delta-Natchezan phase. Proportions of ceramic types change, some new styles and types appear, and European trade goods are often found in association with the aboriginal materials (Quimby 1957:118-119,134-144).

Aboriginal Occupation during the Colonial Period

Identities and locations of Indian tribes in Louisiana cannot be determined for any period prior to about A.D. 1700 when literate French settlers and visitors began to record their observations regarding aboriginal occupants of the area. Despite these accounts, it remains difficult to sort pre- and post-contact culture traits. This is especially true for the lesser tribes living along the Mississippi River and other areas within southeastern Louisiana (Kniffen et al. 1987:45).

The protohistoric and early historic periods were traumatic for aboriginal society in southeastern Louisiana. The effects of disease and of the ever-increasing European population are reflected in the declining aboriginal population and in the migrations by remnants of various tribes. Internecine warfare typified relations between the various groups (Giardino 1984). Chapter 5 of this report presents more detailed information about historic period Native American activity in the vicinity of the study area.

CHAPTER 5
HISTORIC OVERVIEW FOR THE REGION THAT INCLUDES DAVIS POND
by Benjamin Maygarden

Native Americans continued to maintain an important presence in southeastern Louisiana even after the arrival of European explorers and settlers. At the beginning of the historical period, the Quinipissa Indians were living in the vicinity of St. Charles Parish. They were a Muskhogean Indian tribe who figured in several of the narratives of LaSalle's 1682 exploration of the Mississippi. The Quinipissa are thought to have fired a volley of arrows at LaSalle's party during their descent of the Mississippi River. During the first part of LaSalle's ascent of the river, he again encountered the Quinipissas when his party camped on the east bank opposite the village where they had been attacked while descending. The site of the Quinipissa village was probably near present-day Hahnville (Swanton 1911:280).

By the time of Tonti's 1686 search for LaSalle, the Quinipissa were no longer residing in the area (LA Indian Miscellany 1940:12). However, other Native American groups remained present in the area that includes Davis Pond. In 1699, Bienville travelled down Bayou Lafourche, the natural levee of which marks the western boundary of the Barataria Basin. His goal was to make contact with the Ouacha Indians who were known to live along the bayou. Bienville's Bayogoula guide referred to the bayou as "the River of the Ouachas." The expedition made contact with a village located near present-day Labadieville (Hunter et al. 1988:27-28).

Only a few years later, Bienville sent a raiding party to attack the Chitimachas and to capture slaves. The Chitimachas were now living on Bayou Lafourche which was referred to as "River of the Chitimachas." It appears that the Chitimachas settled in the area already occupied by the Ouacha and Chaouacha some time between 1699 and 1705. However, it is likely that the Ouacha maintained a presence in the Barataria Basin because Lake Salvador was referred to as "Lake Ouacha" or "Lake Washa" into the late nineteenth century. Also, the 1763 confirmation of a land transaction made in 1744 indicates that Claude Joseph Villas Dubreuil purchased from the "Ouacha and Chaouache Indians" a large tract located on the west side of Lake Salvador. Some Ouacha and Chaouacha Indians moved to locations along the Mississippi River within and near St. Charles Parish during the 1700s (Hunter et al. 1988:28, 30-31; Blume 1990:18; Giardino 1984:251-252).

Although LaSalle had claimed for France all of mid-continental America drained by the Mississippi in 1682, France initially did little to develop the new territory. Louis XIV was preoccupied with wars and court extravagances until shortly before the start of the eighteenth century. In 1698, Pierre Le Moyne d'Iberville, accompanied by his younger brother Jean-Baptiste Le Moyne de Bienville, was sent to establish French sovereignty over the Mississippi Valley and the Gulf Coast in the vicinity of the river's mouth. Bienville established Fort Maurepas at Biloxi Bay in 1699, and the following year he founded Fort de la Boulaye on the east bank of the Mississippi River somewhere within present-day Plaquemines Parish. Both sites were abandoned within a few years, and a settlement at Mobile became the center of French activity (Wilson 1987:1).

In 1712, the French crown granted Crozat a monopoly on economic affairs of the languishing settlements. Crozat's charter granted him commercial, mineral, and fur trading privileges, and it authorized him to send one shipload of African slaves annually for sale to the colonists. In turn, Crozat's obligation was to send two vessels of colonists each year. Crozat was relying on commercial profits to finance his enterprise. However, anticipated profits from exploitation of mineral resources and from the fur and Indian trade were not forthcoming. Crozat's only reliable market was the approximately 700 settlers scattered through the colony (Clark 1970:14-16).

In 1717, Crozat's financial failure forced him to give up his commercial monopoly on the colony. Louis XIV had died in 1715, and France was now ruled by the Regent Phillipe, Duc d'Orleans, whose financial advisor was John Law. Law's Company of the West, involved in French commercial and financial ventures throughout the world, assumed responsibility for the Louisiana colony in 1717 (Clark 1970:17). That same year, the Company directed that a city named New Orleans be established on the Mississippi River some thirty leagues from the mouth (Wilson 1987:3-4).

Law had other concessions at the confluence of the Arkansas and Mississippi Rivers, on the Mississippi below New Orleans, and on the Gulf Coast. In 1720, Law recruited emigrants from a number of German-speaking localities in Europe to settle on his concessions. Law's Company of the West disseminated propaganda to counter a negative image of settlement prospects in French Louisiana, including a well-known pamphlet printed in Leipzig in 1720 that exaggerated the munificence of the landscape. In the pamphlet, Louisiana was depicted as a land overflowing with game;

filled with mines of gold, silver, copper and lead; as well as herbs and plants to provide "healing remedies for the most dangerous wounds, yes, also, so they say, infallible ones for the fruits of love" (quoted in Voss 1928:8-9). As appealing as this description may have been to potential settlers, the depressed and disrupted economy in much of Germany was doubtless the major impetus for most of Law's recruits.

Approximately 2,600 people (Le Conte 1967:73), mostly in family units or entire villages, were recruited in Alsace, Lorraine, the Pfalz, Baden, Wurttemburg, Mainz, Trier, and Switzerland. These German-speaking emigrants included recruits for the Swiss regiment in Louisiana and workers designated for the army (Blume 1990:9). Many of the settlers died before leaving French ports and many more died upon arrival in the New World at Biloxi and Dauphin Island (Voss 1928:9-10). The settlers were to be established at Law's concession at the Arkansas River. The majority of them went as *engages*, a kind of indentured servant, under contract with Law. Left at the Arkansas without plows, oxen, cows, or wagons, the effort of the settlers was a failure and after a few months the Germans departed downriver for Law's concession at English Turn. When news reached the settlers of the collapse of the "Mississippi Bubble" and Law's fall from grace, most went to New Orleans and demanded return to France. Bienville convinced them to stay. On his own authority he granted them concessions on lands belonging to the Company of the Indies, which had supplanted Law's Company of the West. The area granted for settlement was located between the vicinity of present-day Destrehan and Lake des Allemands on the west bank of the Mississippi. The Germans relocated there in June and July 1721 (Le Conte 1967:77, Blume 1990:15). It is likely that at least part of this settlement had been occupied prior to 1721 by a group of Ouacha Indians (Blume 1990:15).

Also in June 1721, a group of independent German settlers, under the leadership of a Swedish soldier of fortune named Karl Friedrich D'Arensburg, arrived at Biloxi. They settled in the same area on the west bank as the previous German arrivals. This area of German concentration became known as *La Cote Des Allemands* (the German Coast) or simply *Les Allemands*. Bienville placed D'Arensburg in command of the area, and the census of May 1722 indicates that a population of 257 persons of all ages and sexes had been established in three villages upriver from present-day Hahnville. In late 1722 (Le Conte 1967:80), a hurricane forced water from *Lac Des Allemands* into the settlements, causing many of the Germans to move closer to the Mississippi River, and some to leave the German Coast. The

1724 census revealed a decline in population to 169 persons in 56 families, only six of which had cows and none of which had horses (Blume 1990:23-26).

The 1724 census indicates that the farms of these settlers were small, ranging only three to eight arpents front. A total of some 113 arpents had been cleared on the German coast. The small size and rudimentary development of the German Coast establishments relative to the larger concessions downriver towards New Orleans was marked. By 1724, the commercial production of indigo had begun on these larger concessions which had relatively large numbers of slaves (Blume 1990:35-36).

The German settlers were no longer *engages* by 1724; rather, when the Company of the Indies assumed proprietorship of the concession, the settlers became *concessionaires*. They were obliged to grow corn and wheat and to sell their produce to the Company, and purchase from it the necessities of life at fixed prices. Upon the dissolution of the Company of the Indies in 1731, the settlers became proprietors of their individual concessions. After 1731, they increasingly switched to cultivating fruit trees and vegetables, and to raising poultry and cattle. This resulted in an improvement of their prosperity. By the census of 1731, the population of the German settlement had increased to a population of 267 inhabitants, plus 120 African-American slaves. Forty-nine of the 68 concessions had cattle, totaling 159 head (Blume 1990:47).

By 1729, an area within the Barataria Basin was being referred to on maps as the "Isle de Barataria." Virgin forests and shell middens in that region had potential for and began to be used as construction materials in New Orleans. The wood growing there was also exported (Swanson 1975:135-136) and in the early years of the colony represented an important commodity (Clark 1970:29). Canals were dug from the Mississippi River into the Barataria Basin to provide an access route for retrieving felled trees. The Basin was also a source for fish, game, and exportable furs for the early colonists (Swanson 1975:136). Some concessionaires also began raising cattle on higher ground within the Basin (Swanson 1991:19).

German-speaking settlers continued to arrive at the German Coast during the mid-eighteenth century. These included both Swiss soldiers and a large group from Lorraine in 1754. Governor Kerlerec noted of the latter group:

> I have received the families from Lorraine by the Concord. They are established *aux Allemands* and

> work well. Many like those who would be necessary for the advancement of the colony -- families accustomed to working the soil, whose energies would redouble in a country where the revenues would belong to them without the burden of taxation (quoted in Deiler 1975:105-106).

Alsatian immigrants also arrived in the 1750s. They, like the settlers from Lorraine, were probably bilingual, speaking both French and German. A number of Catholic German families arrived from Maryland in 1774. The result of population growth through immigration and native increase was an expansion of the "German Coast" into areas up, down, and across the Mississippi River. It now encompassed an area bounded by Lake Maurepas to the north, Lake Pontchartrain to the east, and Bayou des Allemands to the south. In 1745, 100 German families were enumerated on the coast.

The characteristic pattern of agricultural activity on the German Coast was small farms, a pattern which continued for decades. Redon de Rassac wrote in 1763:

> The so-called German Coast furnishes a lot of rice to the city, many vegetables, corn, milk products and poultry, but very little indigo and sugar. This is because the inhabitants do not have enough negroes at their disposal although they are the best workers in the colony (quoted in Blume 1990:67).

By the 1760s, indigo production was the dominant economic activity on the larger plantations and had spread to the plantations of the lower German Coast, and even to some smaller farms on the west bank (Blume 1990:84).

Despite the economic disadvantages faced by the German Coast settlers, the census of 1766 and census of 1769 indicate that it was an area of healthy economic development. By 1769, the number of inhabitants numbered 2016 of whom 1268 were whites, eight were Free Persons of Color, and 740 were African-American and Native American slaves. Of the 220 family heads, 52 were French, 90 were Creoles from Canada and Louisiana, 66 were German and 12 were "foreign" (Blume 1990:81). The census indicates that individuals of German heritage were already in a minority by this date. Intermarriage and acculturation would continue to reduce the German ethnicity of the region in the following decades.

Jeffreys, writing at the end of the French colonial period, described the prosperity of the German colonists:

> Ten leagues before the stream reaches New Orleans is the settlement of the Germans, who after the disgrace of Mr. Law, abandoned his plantation at Arkansas, and obtained leave of the council to settle in this country. Here, by means of their application and industry, they have got extremely well cultivated plantations, and are the purveyors of the capital, whither they bring, weekly, cabbages, salads, fruits, greens and pulse of all sorts, as well as vast quantities of wildfowl, salt pork, and many excellent sorts of fish. They load their vessels on the Friday evening, towards sunset, and then placing themselves two together in a pirogue, to be carried down by the currents of the river, without ever using their oars, arrive early on Saturday evening at New Orleans, where they hold their market, whilst the morning lasts, along the bank of the river, selling their commodities for ready money. After this is done, and when they have provided themselves with what necessaries they want, they embark again on their return, rowing their pirogues up the river against the stream reach their plantations in the evening with provisions, or the money arising from the produce of their labours (Jeffreys 1761:147, sic throughout).

Inhabitants of the German Coast were opposed to Spanish rule because they expected economic dislocation to result from restrictions on trade imposed by the Spanish. In 1768, D'Arensburg, still in *de facto* command of the German Coast, arrested a messenger from the Spanish governor, Lt. Gen. Don Antonio de Ulloa. The German Coast settlers rose in an insurgency. On October 28th, a body of men marched on New Orleans. They were joined by some Acadians, making perhaps 400 men in all. They forced their entry at the Tchoupitoulas gate of the city. Ulloa fled, but his successor, Don Alejandro O'Reilly, rapidly quashed the uprising and executed a number of leaders. D'Arensburg himself was pardoned.

By the following decade the German Coast inhabitants were increasingly willing to cooperate with Spanish authority. In 1773, the British appeared on the German Coast, causing concern over their encroachment, as would the possibility of American encroachment later in the period of Spanish rule in Louisiana. In 1779, during the American

Revolution, Governor Bernardo de Galvez spent a period of time with his troops on the German Coast before proceeding upriver to Baton Rouge. His recruiting efforts were so successful that he remarked that "On the German Coast, only old men are left" (quoted in Blume 1990:129).

The Spanish were concerned about the defense of their newly acquired colony, and decided to establish a series of outposts where soldiers and their families could live. One of these was above the confluence of Bayous Barataria and des Familles in the eastern portion of Barataria Basin. In 1779, about 150 recruits from the Canary Islands (referred to as *Islenos*) began arriving at the settlement. Hurricanes in 1779 and 1780 devastated the community. The Barataria *Islenos* began relocating to a sister settlement in present-day St. Bernard Parish as well as to New Orleans and other places. By 1783, the Barataria settlement was largely abandoned (Swanson 1991:59-60, Din 1988:47-51). However, some of the residents remained at the settlement for a few additional years. At least one member of the original group of settlers still lived near Bayou des Familles at the time of her death in 1807 (Swanson 1991:97-98). Archeological evidence, specifically Native American ceramic wares found at the Barataria *Islenos* house sites, indicates that even in the early 1780s European settlers in the hinterlands were trading extensively with Native Americans in the Basin (Giardino 1989:106-116).

Substantial social and economic changes marked the decades of Spanish dominion. The German ethnic groups in the region were increasingly assimilated into the surrounding French culture. This was largely the result of their status as a numerical minority and their willingness to intermarry with those of French extraction. However, the names of German settlers, often transliterated or translated into French, remain common in the region into the present. Then too, they remained sufficiently distinct as a population for late-eighteenth and early-nineteenth century observers to remark on their physical appearance and manners. Berguin-Duvallon, who was critical of many Louisiana residents, remarked:

> The Germans are somewhat numerous, and are easy to be distinguished by their accent, fair and fresh complexion, their inhospitality, brutal manners, and proness to intoxication. They are, however, industrious and frugal (Davis 1806:78).

Another writer of the same period, C.C. Robin, stated:

> These Germans living among the French have retained their taciturn character, their language and their manners. They do not have that open and affectionate countenance of the French. They are stingy but well behaved. They work their own farms, without Negroes, and although originally northern they have become well acclimated. Yellow fever never bothers them because they work. This malady strikes those who in New Orleans live in inactivity or in the too active state of passion and intemperance (Robin 1966:114).

The last decade of the eighteenth century saw the demise of indigo production in the lower Mississippi delta. Sugar became the leading commercial crop of lower Louisiana. By 1805, sugar had already supplanted indigo in those areas at and below the lower portion of the German Coast (Perrin du Lac 1805:380-381). Under American rule, the cultivation of sugar was the basis of the lower German Coast economy until the Civil War.

African-American slaves were the workers whose labors enabled a small planter population to dominate the area's economic and political life. From 1810 to 1820, the slave population of St. Charles increased almost 30%, from 2,321 to 2,987, while the white population actually declined from 820 to 727. Between 1820 and 1830 the slave population increased some thirty-eight per cent, from 2,987 to 4,118. During the remaining antebellum decades the white population of St. Charles remained remarkably stable, while the slave population fluctuated but did not grow greatly (Blume 1990:142).

In January 1811, some slaves on the east bank of the German Coast pillaged and burned a number of plantations. A force of militia and regular army troops was dispatched from New Orleans, but the insurgents had been dispersed by an armed group of local planters before the troops arrived. Again in December 1811 the militia was raised on the fear of an insurrection on the German Coast, which did not materialize. Another insurrection in 1826 required that U.S. regulars be sent from New Orleans to the German Coast to restore order. An unfounded fear was widespread that the German Coast would witness a major uprising in the wake of Nat Turner's revolt in 1831 (Young 1974:208-218).

By the early nineteenth century, the name "Barataria" was used to refer to a large area that included natural levees, swamps, marshes, lakes, and bays between Bayou Lafourche to the west and the Mississippi River to the north and east. The first two decades of the century were the

period when the Basin acquired its associations with the activity of Jean Lafitte and his compatriots. However, smuggling was a common activity in the Barataria region in both earlier and later periods (Swanson 1975:149-151).

Jean Lafitte and the privateers he organized maintained a headquarters on Grande Terre at the southern end of the Barataria Basin. They built dwellings, storehouses, and a small fort. They also utilized a prehistoric shell mound further inland in the Basin. It was referred to as "Little Temple." Wharves, storehouses, and a slave barracoon were said to have been present at Little Temple. In September, 1814, the British attacked and destroyed Lafitte's stronghold at Grand Terre. However, secret caches of goods elsewhere in the Barataria region were not destroyed, and it was from these that Lafitte helped to supply General Andrew Jackson's force which defended New Orleans in January, 1815. Local lore holds that many present-day inhabitants of the Barataria Basin are descendants of Lafitte's privateers (Swanson 1975:138-139, 149-152).

The antebellum decades saw the establishment and growth of many of the large plantations of St. Charles Parish. Some of these survived the devastating loss of slaves and capital equipment brought about by the Civil War. In the spring and summer of 1860, J. W. Dorr, a journalist for the New Orleans Crescent, made a horse and buggy tour of much of Louisiana, and had a number of comments on St. Charles Parish.

> Along the levee road as smooth as the New Canal shell road, a constant succession of wealthy estates keep the interest alive... Splendid old homesteads dot the road at the distance of a quarter of a mile apart, the out-buildings, negro quarters, etc. forming at each a considerable village... It is no use for me to attempt to describe any of the splendid residences of the princely planters... All that tasteful architecture, ornamental shrubbery, and magnificent moss-hung trees can do towards the beautifying of the sugar planters' residences in Jefferson and St. Charles Parishes, as far as I have been, is effected (quoted in Prichard 1938:1113).

Dorr was a careful observer and recorder of conditions in St. Charles. He reported that 45,884 acres of the Parish's total area of 81,413, representing approximately 56%, were under cultivation. He estimated that about 38,000 acres were in cane, 6000 in corn, and a mere three or four

hundred in rice. The value of real estate held by residents of the Parish was $1,646,900.00, and of non-residents $56,366.00. Slaves in the Parish were valued at $2,053,300.00, cattle at $25,200, carriages and vehicles at $8450.00, and capital invested in trade, at only $15,000.00. Only five stores were listed for the whole Parish, leading Dorr to comment that "'merchandising' is a very inferior interest in these parts." The total Parish population was about 5000, of whom about 900 were whites, 3719 were slaves, and 200 were Free People of Color (quoted in Prichard 1938:1114).

The Civil War was to have a profound impact on St. Charles Parish despite the fact that only minor engagements between Federal and Confederate troops occurred in the area. In the statewide referendum on the issue of secession, St. Charles voted by a small majority to secede. All of the surrounding parishes voted to stay in the union (Yoes 1973:78). The vote to embrace the consequences of secession would be full of bitter irony for the plantation society described by Dorr in 1860. During the first four months of 1862, fear of a Federal invasion of the lower Parishes increased. Desiring to bolster resources for active defense, St. Charles Parish added a $40.00 bounty to that of $50.00 already paid by the Confederate government for volunteers. The militia was revived in a desultory fashion, as events would prove. Following the fall of New Orleans in April 1862, Federal troops and gunboats appeared on the German Coast.

The line of the New Orleans, Opelousas, and Great Western Railroad went from Algiers to St. Charles Station, west-southwest to Boutte Station, and then southwest to Des Allemands Station. The Federals rapidly proceeded down the rail line and captured Boutte Station and Des Allemands Station, establishing a post of 150 men at the latter. In August 1862, Federal troops mounted expeditions against Confederate forces in the Lafourche area as well as upper and central St. Charles Parish, using the Boutte rail line for their movements. During these troop movements, numerous German Coast plantations were plundered by badly disciplined Federal troops of the 8th Vermont Regiment, responsible for guarding the 32 miles of the N.O., O., & G.W. R.R. between Algiers and Des Allemands (Lathrop 1968:62). Most notable of the residences of the planters to fall victim to marauding Union soldiers was Fashion Plantation which was located below Hahnville and was the home of Confederate Brigadier General Richard Taylor, son of Zachary Taylor. Taylor's mementoes of his father, including documents and personal items, were all lost. The Federal

troops in the area were only ineffectually engaged by local militia and guerillas (Lathrop 1968:66-67).

Taylor was incited to complain about the plundering activities of Federal troops to Benjamin Butler, commanding in New Orleans. Butler subsequently issued special orders against the taking of private property by soldiers for their own use (Lathrop 1968:68). In September 1862, the Confederates mounted a more significant challenge to the Federal presence in the area. The Terrebonne Regiment of militia, and a battalion of Rangers from Texas and Rapides Parish, under Major James A. McWaters, and the St. Charles militia under Brigadier General John G. Pratt, set out to capture Boutte Station and Bayou des Allemands. Boutte Station was found to be deserted, but a body of Federal troops was discovered on the rail line proceeding towards Algiers. The Confederate forces ambushed the train, but another Federal train arrived on the scene from Algiers, and both Federal trains moved back towards Algiers.

Major McWaters moved his troops to the vicinity of the St. Charles Parish courthouse where they had the misfortune to be pinned against the backswamp by troops of the 21st Indiana and 4th Wisconsin, sent by boat above the courthouse while the 14th Maine, 9th Connecticut, and 6th Michigan, with two sections of Thompson's artillery, arrived below. Gunboats on the river assisted the Federal advance. The Texans fled into the swamp in the face of poor odds, and most escaped without their horses, many of which had to be shot when they could not be extricated from the mud (Winters 1963:156-157).

For the remainder of the war, St. Charles Parish was not a scene of notable military activity. The New Orleans, Opelousas, and Great Western Railroad was later guarded by the Federal First Louisiana "Native Guard" regiment which was made up of African-American troops (Davis 1964:143). Their muster rolls probably included many former slaves.

The antebellum society of the sugar-producing parishes was devastated as a result of the massive loss of capital entailed in the freeing of slaves as well as the destruction of sugar houses, sugar-refining equipment, wagons, and livestock. The immediate requirements for sustenance produced a shift to rice-growing, which became commercially established in the post-war period. Although sugar cultivation recovered somewhat under peacetime conditions, rice became the principal cash crop of the region after the war. In 1871, considered the best crop year to date since the war, St. Charles Parish produced 5,527 hogsheads of sugar, compared to 18,191 hogsheads in the last "prewar"

crop year of 1862. By 1873, rice production figures by Parish were included in the annual Bouchereau report on sugar production and reveal that the west bank of St. Charles Parish produced 2,395 hogsheads of sugar and the Parish as a whole 2,699 hogsheads; 4,392 barrels of rice were produced on the west bank of St. Charles and 5,402 in the Parish as a whole. In the following year the west bank of St. Charles produced 7,204 barrels of rice and the entire Parish produced 17,047 barrels. The 1874 sugar crop for St. Charles Parish totaled 3,922 hogsheads, of which 2,699 were produced on the west bank. In 1876, 10,584 barrels of rice and 4,127 hogsheads of sugar were produced on the west bank of St. Charles Parish. Many farmers never returned to sugar production. However, some large west bank plantations like Lone Star, Louisa, Davis, and Alice remained undivided and continued to produce sugar on a commercial scale into the twentieth century.

Other industries, notably timber, became prominent on the west bank of St. Charles Parish after the Civil War. The Louisiana Cypress Lumber Company was active within the study area. Joseph Rathborne established the company in 1880 on the lower side of the Harvey Canal. By 1891, the company owned 50,000 acres of swamp land and employed five hundred men. Six years later, it held the largest cypress mill in the world. Rathborne had revolutionized logging in Louisiana by pioneering the use of the band saw and steam logging machines. The Louisiana Cypress Lumber Company closed in 1929 (Swanson 1975:78, 117, 122, 136). The demise of the lumber industry was the result of depletion of the supply of cypress timber.

The post-Civil War economic recovery of St. Charles Parish occurred in a demographic context of decreasing population. Overall, population growth in St. Charles lagged behind that of the state as a whole before 1900 (Yoes 1973:131). The labor problem brought about by the dissolution of slavery led to the introduction of sharecropping and to the use of hired labor. In 1880, St. Charles Parish was the scene of one of the first, as well as one of the largest and most disruptive, labor strikes in Louisiana. In March, African-Americans working on the Whitehead and Duggan plantations struck for higher wages, demanding an increase from 75 cents to $1.00 a day. The strike spread down the west bank until eighteen plantations were affected. The strikers became well-armed and the white population was terrified. On March 19th, federal troops were sent from New Orleans. The strikers were over-awed by the troops and the strike collapsed. The leaders of the strike were arrested but later paroled (Yoes 1973:127-130).

From the late nineteenth century through the middle of the twentieth century, agriculture continued as the basis for the economy of St. Charles Parish. However, oil fields were discovered and opened in the first half of the twentieth century, and the extraction and processing of oil were the major counterpoints to declining employment opportunities in the Parish. After World War II, oil production began to exert a strong influence on the general economic condition of the parish. The resulting process of social change is exemplified by the transformation of the small town of Sellers into Norco, the company town of a major Shell Oil Company production facility. After 1950, population growth accelerated with a surge of industrialization, as major plants, such as Lion Oil Company (later Monsanto), Shell Chemical, Union Carbide, and Hooker Chemical opened (Yoes 1973:133, 137, 192-193). Several of these are located on the west bank in the vicinity of the study area. However, the agricultural character of St. Charles Parish's west bank has not been completely erased by industrial development and accompanying residential land use. A number of large and small farming operations continue, although dairying has largely supplanted the commercial production of sugar cane.

CHAPTER 6
HISTORY OF DAVIS AND LOUISA PLANTATIONS
by Susan Enzweiler and Jill-Karen Yakubik

Davis Plantation

The land that once formed Davis Plantation is comprised of Sections 27, 28, 43, 45 and part of Section 25 in T.13S, R.21E, and Sections 38, 39, 40, and 41 in T.14S, R.21E. The earliest record of European habitation on or near the present site of Davis Plantation is shown on the c. 1723 Carte Particuliere (Figure 20). In the general area of the future sugar plantation was the *habitation* of Sieur Saisnon, which is depicted with two buildings on it. Saisnon owned another tract of land directly across the river from his west bank property. The map also illustrates a building on that second tract (Figure 20). On the downriver side of Saisnon's west bank tract was a large holding marked "Terrain au Sieur Manadé." No buildings are shown on this property (Figure 20), suggesting that Sieur Manadé was a concessionaire in France who never visited his Louisiana holdings.

Documentary evidence indicates that Jacques Bernard Masicot *pere* and his family probably took up residence on the land that would become Davis Plantation during the Spanish colonial period (Figure 21). The exact date of the family's arrival on the German Coast is uncertain, but it probably occurred sometime between 1731 and 1763. This estimation of their arrival on the German Coast is based on the occurrence of the name Masicot in censuses, in the records of the Superior Council of Louisiana, and in genealogical material compiled by Cochran (1963).

The "Census of Inhabitants Along the River Mississippi Dated 1731" did not include the name Masicot (Maduell 1972), suggesting that the family had not arrived in the colony by that date. However, by the late 1740s, Jacques Bernard Masicot *pere*, the son of Ignace Masicot and Jeanne Baquon, was a colonial coat maker involved in trade with France (Cruzat 1931:588; Cruzat 1935:449). Other documents from 1752 mention a Jacques Masicot who was a baker (French Colonial Documents, 25 August, 2 and 22 September 1752, LHC). Therefore, the occupation of the Jacques Masicot who eventually settled on the German Coast is uncertain. It is also unknown whether he was born in France or Louisiana. If he was French born, it is also uncertain whether he migrated to the New World as a child or as an adult. He married Marie Daudin sometime prior to 1739, which was the year his son, Jacques Bernard Masicot *fils* (1739-1797), was born (Cochran 1963:177).

Figure 20. Excerpt for the Carte Particuliere du Fleuve St. Louis, ca. 1723, showing the concessions of Sieurs Saison and Manade (Louisiana Collection, Howard-Tilton Library, Tulane University). No scale available.

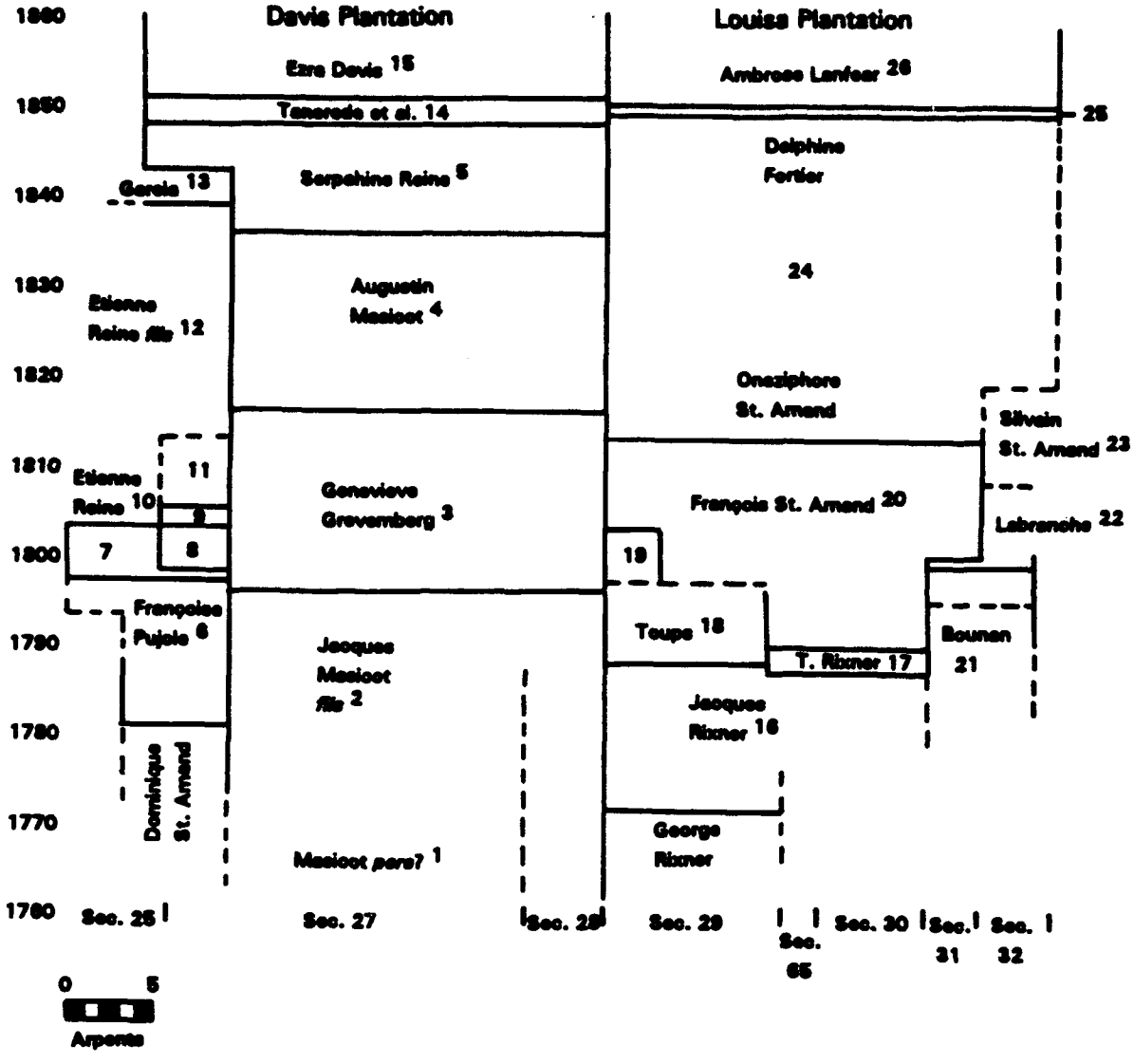


Figure 21. Schematic chart of land ownership at Louisa and Davis Plantation from 1760 to 1860.

Notes on Figure 21.

1. The 1766 census of Boisclair's Company indicates a "Macicot" family living on 15 arpents front on the west bank of the river (Voorhies 1973:173). The head of household is probably Jacques Masicot *pere*.

2. Galvez issues an order of survey for lands within what is later designated Section 43 in T.13S, R.21E and Section 40 in T.14S, R.21E to Jacques Masicot *fils* (Lowrie and Franklin 1834:579). This indicates his residence within what became Section 27 of T.13S, R.21E from at least that date. Masicot *fils* acquires the land that would become Section 28 prior to his death in 1797 (Lowrie and Franklin 1834:259).

3. Genevieve Grevemberg, the Widow Jacques Masicot *fils*, holds 21 arpents front at the time of her death (Courrier de la Louisiane, 10 December 1817). The property is confirmed to the heirs of Masicot in 1716 (Lowrie and Franklin 1834:259).

4. Augustin Masicot acquires the plantation after his mother's death in 1817 (T. Guyol, 12 May 1852, NONA).

5. Seraphine Reine, the Widow Augustine Masicot, takes over the plantation after her husband's death in 1837 (Cochran 1963:177; 1840 Federal Census). She purchases an additional five arpents front from Carlos Garcia in 1844 (J.L. Labranche, 4 January 1844, NONA).

6. Six arpents front are inherited by Françoise Pujole, the Widow Dominique St. Amand, at the time of her husband's death in 1781 (Conrad 1974:85).

7. Françoise Pujole sells nine arpents front to son-in-law François-Louis St. Martin in 1798 (Conrad 1974:247, 300, 375).

8. Silvain St. Amand purchases four arpents front from St. Martin in 1799 (Conrad 1981:7).

9. Pierre and François St. Amand purchase four arpents front from Silvain St. Amand in 1804 (Conrad 1981:7). François sells his share to Pierre on May 10, 1806 (Conrad 1981:31). Pierre sells it back to François on August 16 (Conrad 1981:36).

10. Etienne Reine purchases five arpents front from St. Martin in 1804 (Taylor and Conrad 1981).

Notes on Figure 21 (continued)

11. Charles Masicot and François St. Amand exchange properties in 1804 (COB 1806:345, SCP).

12. Etienne Reine *fils* acquires at least Charles Masicot's four arpent front parcel by 1817 (Courrier de la Louisiane, 10 December 1817).

13. Carlos Garcia purchases Etienne Reine *fils* property in 1840 after the latter's death (J.L. Labranche, 4 January 1844, SCP).

14. Emile Tanerede, François Reibaud, and Jacques Masicot purchase the 21 arpent front and the five arpent front parcels from the estate of Augustin Masicot in 1849 (François Chaix, 9 February 1849, NONA).

15. Ezra Davis purchases the plantation from Tanerede, Reibaud, and Masicot in 1852 (T. Guyol, 12 May 1852, NONA).

16. George Rixner sells his son, Jacques, 10 arpents front in 1773 (COB 1773:503, SCP). Jacques purchases an additional eight arpents front sometime before his death in the late 1780s.

17. Jacques Rixner's daughter Therese receives nine arpents front from her father's estate in 1788 (COB 1788:674, SCP).

18. Paul Toups purchases nine arpents front from the estate of Jacques Rixner in 1789 (COB 1789:37, SCP).

19. Charles Masicot probably purchases three arpents front adjacent to his family's plantation in 1798 (Holmes 1961:230,232,233-234). Charles Masicot and François St. Amand exchange properties in 1804 (COB 1806:345, SCP).

20. Therese Rixner and François Daspit St. Amand enter into a marriage contract in 1791. Therese's holdings include the nine arpents front she inherited from her father (COB 1791:264, SCP). Françios probably purchases the adjoining upriver six arpents front in 1798 (Holmes 1961:230, 232, 233-234). François purchases the adjoining downriver three arpents front in 1800 from Alexandre Labranche (COB 1800:217, SCP).

21. Bonaventure Martin *dit* Bounan sells six arpents front to Antoine Lepine in 1796 (Conrad 1974:274), but the sale is evidently rescinded.

Notes on Figure 21 (continued)

22. Bounan sells six arpents front to Alexandre Labranche in 1800 (COB 1800:56, SCP).

23. Silvain St. Amand owns property adjoining the downriver side of François St. Amand's estate in 1813 (Courrier de la Louisiane, 31 December 1813).

24. Oneziphore St. Amand apparently acquires his father's 21 arpent front plantation in 1814, after the latter's death. He also evidently acquires an additional four arpents front from Silvain St. Amand. No record can be found of either presumed transaction. Oneziphore lays claim to only Section 29 of T.13S, R.21E; Sections 65, 30, 31, and 32 remain unclaimed until the mid-nineteenth century.

25. Delphine Fortier, the "estranged" wife of Oneziphore St. Amand sells 25 arpents front to the Consolidated Association of Planters in February 1850 (A. Ducatel, 12 February 1850, NONA).

26. The Consolidated Association of Planters sells "the former O. St. Amand plantation" of 25 arpents front to Ambrose Lanfear in November 1850 (A Ducatel, 14 November 1850, NONA).

Censuses taken in the 1760s indicated that first one, then later two, Masicot families were residing on the German Coast during that period. Presumably, these were the Jacques Masicot *pere* and the Jacques Masicot *fils* families. It is likely that they were living at the site of the future Davis Plantation, since Governor Galvez granted Masicot *fils* a double concession for these lands in 1777 (Lowrie and Franklin 1834:579; below). Sieur Boisclair, Captain of the Militia, conducted a census of his district on the German Coast in September of 1763. A "Masseignot" (Masicot) family was included in this census of the District of Boisclair. The family consisted of one white man and one white woman with 12 male and four female slaves, as well as two Indian men and two Indian women. Any children the couple may have had were not mentioned. Their plantation comprised 144 arpents of arable land and 330 arpents of wooded land. They owned 10 oxen, 20 cows, 63 sheep, and two swords (Voorhies 1973:75).

A census of Boisclair's Company taken almost three years later in June 1766 revealed a "Macicot" living on the right bank (west bank) of the German Coast. The household consisted of one white man, a 16-year-old white boy, nine male slaves, six female slaves, and four slave boys. No other information was given about these inhabitants. It is probable that the male head-of-household was Jacques Masicot *pere*. Since Masicot *pere's* only son was listed separately as Masicot *fils*, the identity of the 16-year-old boy living with the former is unknown. Masicot *pere* had 15 arpents of land plus eight oxen, 12 cows, six young bulls, 50 sheep, and three muskets with musket powder (Voorhies 1973:173).

The family of "Macicot *fils*" was also listed in the 1766 census. The household included Jacques *fils*, his wife Genevieve Grevemberg (?-1817) (Cochran 1963:177), and their two young daughters, ages five years and four months. The couple owned two male slaves, three cows, six young bulls, and twenty-two sheep (Voorhies 1973:173).

Cochran (1963:176-177) states that the succession of Marie Daudin Masicot, the wife of Masicot *pere*, was confirmed on January 24, 1769, on the German Coast. Unfortunately, these probate records could not be relocated in either St. Charles or Orleans Parishes.

The 1770 census for St. Charles Parish recorded that the plantation of Masicot *pere* was the home for one white male and ten slaves. The plantation produced sixty *quarts* of rice and one hundred eighty *quarts* of corn that year. Four whites and 10 slaves resided at Masicot *fils'*

plantation, which produced 30 *quarts* of rice, 100 *quarts* of corn, and four *quarts* of beans. The specific locations of these plantations were not recorded. However, it can be assumed that they were adjoining because they are recorded next to each other in the census (Voorhies 1973:266).

A census of the men able to serve in the First Militia Company of the German Coast was also taken in 1770. Jacques Masicot *fils* was included in this census. His entry revealed that he was a 31-year-old, married man who had been born in New Orleans. No occupation was listed for him, but his residence was two leagues from the center of the census area. The diameter of the census area was 200 arpents or 2-1/2 leagues, but it is not clear where the center of the area was (Voorhies 1973:405).

Governor Galvez granted an order of survey to James Masicot in 1777. The granted land consisted of Section 43 in T.13S, R.21E and Section 40 in T.14S, R21E (Lowrie and Franklin 1834:579). Undoubtedly the James Masicot who received a grant from Galvez was Jacques Masicot *fils*. No specific reference to Jacques Masicot *pere* can be found after 1770, and Masicot *fils* was a prominent man on the German Coast in the late-eighteenth century. Jacques Masicot *fils* was named a syndic of the Parish of St. Charles des Allemands on March 25, 1770 (Conrad 1974:260). He was the third man to become Commandant of the parish and served from 1783 to 1794 (Gianelloni c. 1965:x). Masicot *fils* also had military experience. He was a first Lieutenant in the First Company of the German Coast during the American Revolution. In 1785, he was a sublieutenant of Infantry at the German Coast. Finally, Masicot *fils* served as a captain in the Infantry Militia Regiment at the German Coast from 1793 to 1794 (Cochran 1963:177). His services to the Spanish government may have prompted Governor Galvez to grant him a double concession. Conrad (1981:vii) reports that it was customary for Spanish officials to grant the lands behind the original homestead, to a depth of forty arpents, to the landowner. This, then, seems to confirm the Masicots' presence on at least Section 27 of T.13S, R.21E at some date prior to 1777. In addition, since Masicot was recorded as owning 15 arpents front in the 1766 census (above), it is possible that Section 27 may have been owned by Masicot *pere* at that date.

No description of improvements to Jacques Masicot *fils'* plantation has been found. The few records dealing with Jacques Masicot *fils'* probate that could be located were largely illegible and provided no further information on his holdings. However, it is quite possible that he may have hired overseers to assist him in managing his large holding.

The Civil Records of St. Charles Parish referred to at least three men who lived on Masicot's plantation. The first was Jean Guerin, who lived with Masicot and was therefore probably not an overseer. He died ca. 1775 (Conrad 1974:35). Michel Maliset *dit* Brullebois was granted permission to build a house for himself on Jacques Masicot's farm sometime prior to his death in November 1780 (Conrad 1974:74-75). In 1790, Antoine Chovette resided in a house on Masicot's farm (Conrad 1974:211-212).

After Jacques Masicot *fils'* death in 1797, his widow Genevieve Grevemberg Masicot continued to run the German Coast plantation with the assistance of her son, Augustin (Conrad 1981:50). At least once, they had to contend with an unruly slave. On September 21, 1807, the corpse of a white man was found in the river near the bank of the Masicot farm. Pierre Bauchet St. Martin, the civil and criminal judge of St. Charles Parish, and a jury of five convicted Lubin, the 40-year-old African-American slave driver at the Masicot plantation, of the murder of this white pedlar. He was executed on the levee in front of the Masicot slave quarters on October 20, 1807. The Widow Masicot was reimbursed 500 piastres for Lubin (Conrad 1981:48-54).

The 1810 census listed the Masicot family on the west bank of the Mississippi River. The name of the head of household is illegible, but it must have been Genevieve Grevemberg Masicot. The household consisted of six white adults over the age of 16 and 72 slaves (Table 2).

Genevieve Grevemberg, the Widow Jacques Masicot *fils*, died in 1817. The December 10, 1817, issue of the Courrier de la Louisiane reported that her sugar plantation was to be auctioned on January 14, 1818. The plantation was described as being located in St. Charles Parish on the right bank of the Mississippi River. It was bounded above by the property of Etienne Reine *fils* and below by the lands of M. Oneziphore St. Amand. It had 21 arpents of river frontage. Four of these were 80 arpents in depth, four others were 40 in depth and the remaining 13 arpents of frontage had titles for double concession, but had never been regularized. The sale was to include 35 slaves of both sexes, draft oxen, farming implements, and personal property (Courrier de la Louisiane, 10 December 1817). Augustin Masicot, who had assisted his mother in managing the plantation subsequent to his father's death, evidently was adjudicated the property, and his purchase was recorded by New Orleans notary Claude Dejan on August 3, 1818 (T. Guyol, 12 May 1852, NONA). Unfortunately, Dejan's acts are incomplete, and no record of the transfer could be found.

Table 2. 1810 Census Data for Genevieve Grevember Masicot's Family.

Number Free White Males	Age
1	16-26
2	26-45

Number Free White Females	Age
1	16-26
1	26-45
1	over 45

Number of Slaves: 72

The property description for this sale is problematic for two reasons. First, the described frontage of the property does not conform to the actual frontage of Sections 27 and 28 of T.13S, R.21E (Figure 21). These two sections measure approximately 20 and four arpents front, respectively (Figure 22). However, it should be noted that the claim by "the heirs of Masicot" (Lowrie and Franklin 1834:259) for Sections 27 and 28 describe them as 16 and four arpents front, respectively. This combined frontage of 20 arpents conforms better with the description given in the auction advertisement of 21 arpents front, particularly since variations of frontage descriptions of an arpent or less were not at all unusual. In the absence of any documentary evidence to the contrary, it must be assumed that there was some confusion over the confirmation of two sections with one claim, and that Section 27 was incorrectly surveyed in as 20 arpents front, or what should have been the total frontage for Sections 27 and 28 combined. The Masicots, however, continued to occupy only the downriver 16 arpents front of Section 27 (Figure 21).

The second problem is the depth descriptions given in the auction advertisement. The four arpents frontage with a depth of 80 arpents is clearly Section 28. However, Augustin Masicot's claim to Section 43 suggests that all of this land (or at least all of this land behind the downriver 16 arpents front of Section 27) was granted as a double concession by Galvez (Lowrie and Franklin 1834:579; above). The auction advertisement implies that only 13 arpents frontage were included in the double concession. This discrepancy may be purely the result of the fact that Augustin's claim to Section 43 had not yet been confirmed.

Augustin Masicot filed the claim to Section 43 of T.13S, R.21E and Section 40 of T.14S, R.21E in 1821 (Figures 22 and 23). Augustin claimed:

> by inheritance, a second tract of land located behind the first depth already confirmed to him. His property is on the right bank of the river, in the country of the German Coast, Parish of St. Charles. The front is bounded above by Stephen Reine's tract and below by the land of the heir of Francis St. Amant (Lowrie and Franklin 1834:579).

The notation of the "first depth already... confirmed to him" undoubtedly refers to the fact that Augustin was one of the "heirs of Masicot" who laid claim to and were confirmed Sections 27 and 28. Augustin presented the 1777 order of

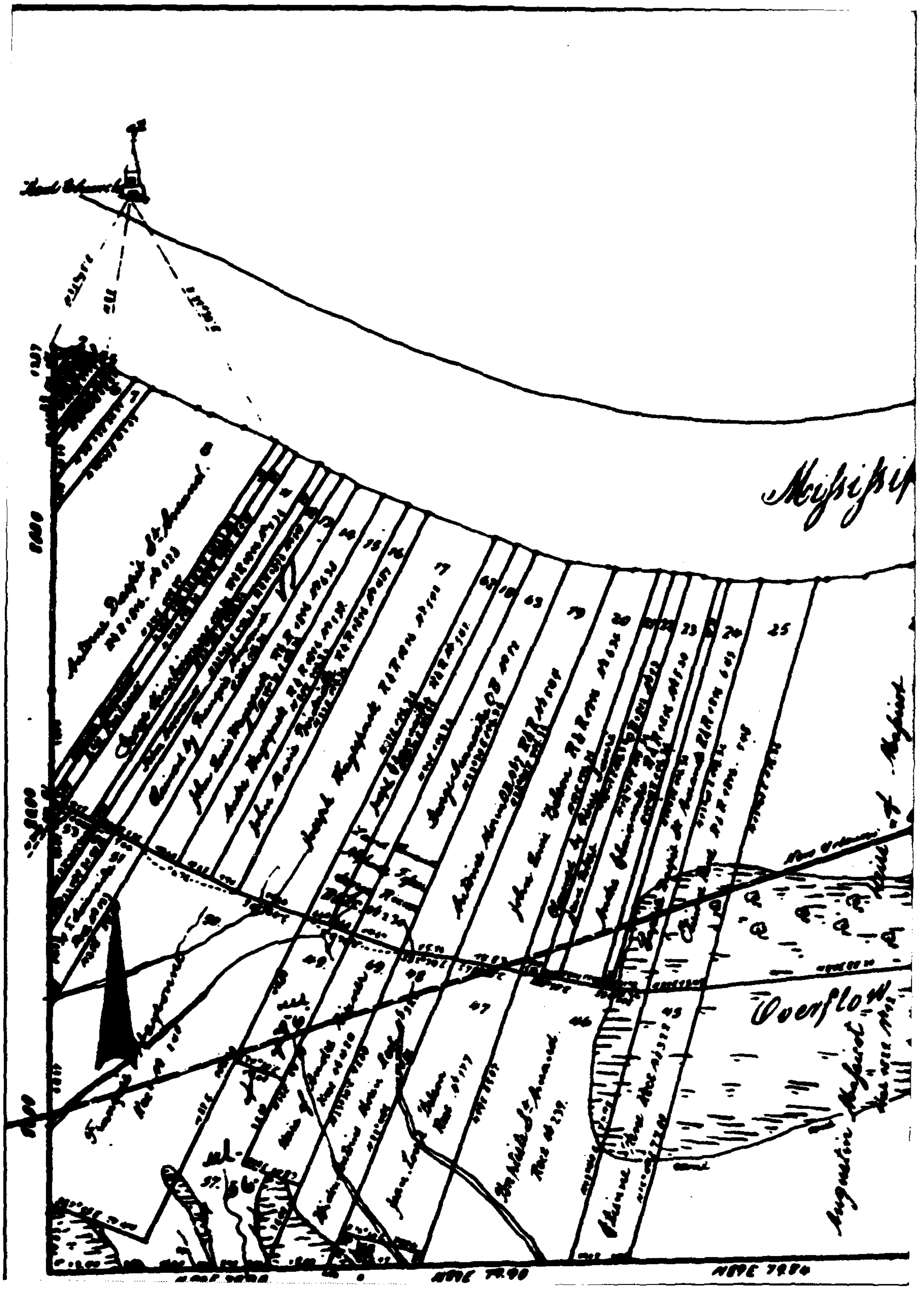
survey by Galvez to James Masicot as proof of his claim. It was recommended that the parcel be confirmed to Augustin (Lowrie and Franklin 1834:579).

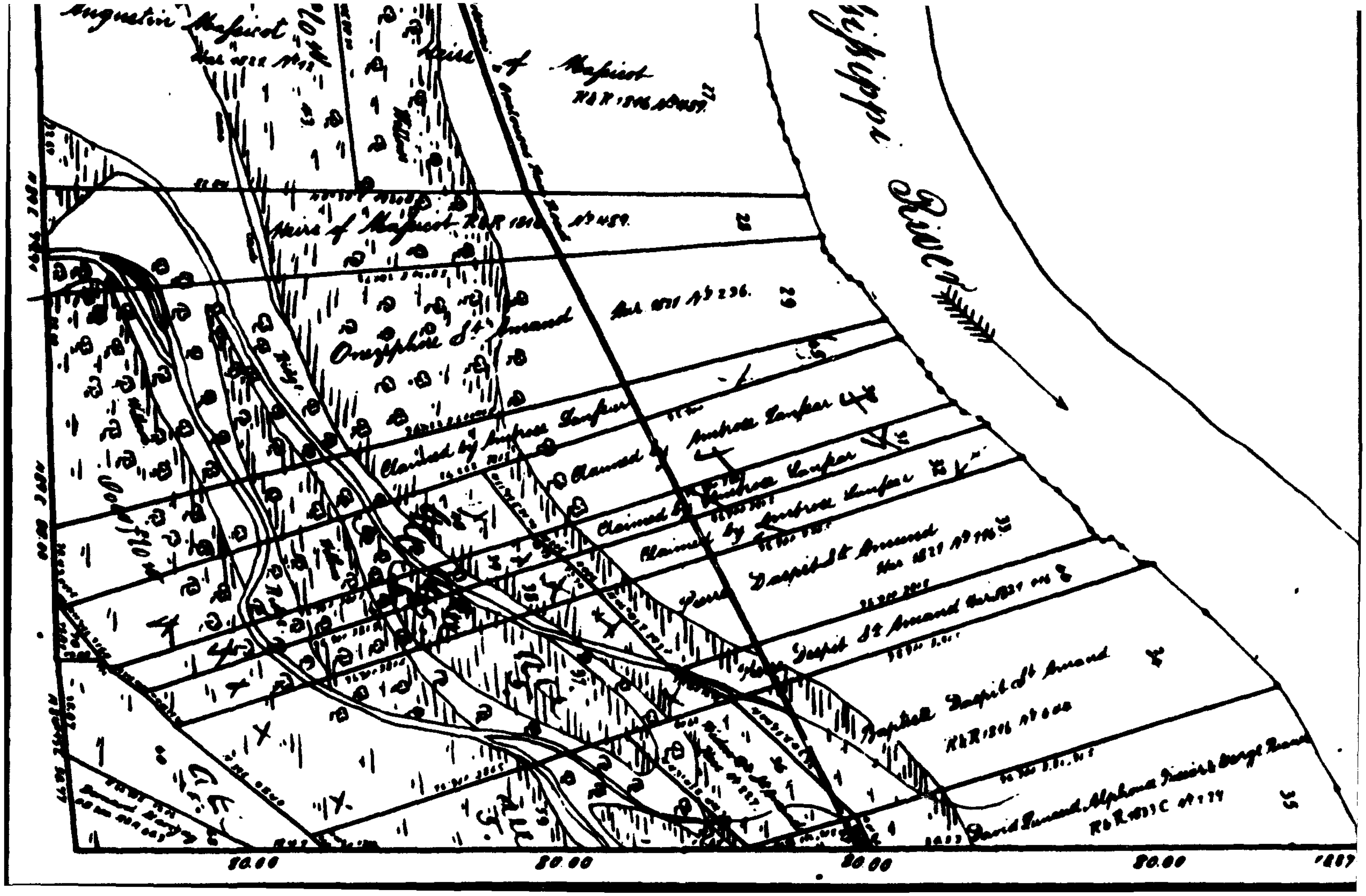
Augustin Masicot was the head of a large household according to the 1820 Census. It was comprised of Augustin (age 44) plus two other free white men, a white female child, and a white woman (1820 Federal Census). Undoubtedly, the last of these individuals was Augustin Masicot's wife, Seraphine Reine (Jean L. Labranche, 4 January 1844, SCP). Augustin Masicot owned 55 male and 25 female slaves. Forty-five of the male slaves and 15 of the female slaves were over age 14. There were also four Free Persons of Color living on the Masicot plantation. All three of the women were over the age of 45, and it is tempting to speculate that they may have been house servants that Masicot emancipated in their old age (Table 3).

Augustin Masicot evidently prospered during the next ten years, because his slave force increased by nearly 50% by the time of the 1830 census. Of his 118 slaves, 72 were males and 46 were females. This was apparently the result of both natural increase and the purchase of young slaves. Although only 10 male and 10 female slaves under the age of fourteen are listed in the 1820 census (Table 3), 25 male and 20 female slaves between the ages of 10 and 24 are listed in the 1830 census (Table 4). Masicot also apparently acquired at least six female slaves who had been at least 14 in 1820 in the ten-year period between censuses. While there were only 15 female slaves over the age of 14 in 1820, there were 21 over the age of 24 in 1830. It should be noted that although there were 45 males above the age of 14 in 1820, there were only 39 older than 24 in 1830. As was the case in the previous census, Free Persons of Color were residing at the Masicot plantation. One of the two Free Women of Color listed was undoubtedly one of the women noted in the 1820 census, since here she was over 55 years old (1830 Federal Census).

Augustin Masicot died in 1837 (Cochran 1963:177). Seraphine Reine, his widow, was listed as the head of the household in the 1840 census (Table 5). Nine free whites were listed in the household, and the slave population was 115. Six Free Persons of Color lived on the plantation, and their ages suggest that they may have been a family (Table 5) (1840 Federal Census).

Seraphine Reine, the Widow Augustin Masicot, enlarged her plantation by purchasing land that adjoined the upriver side of her property from Carlos Garcia in 1844 (Jean L. Labranche, 4 January 1844, SCP). The property, which


Overflow


Augustin Mayeux
Heirs of Mayeux
Onezphore St. Amand
Claimed by
Dauphil St Amand
Baptiste Dauphil St Amand
River
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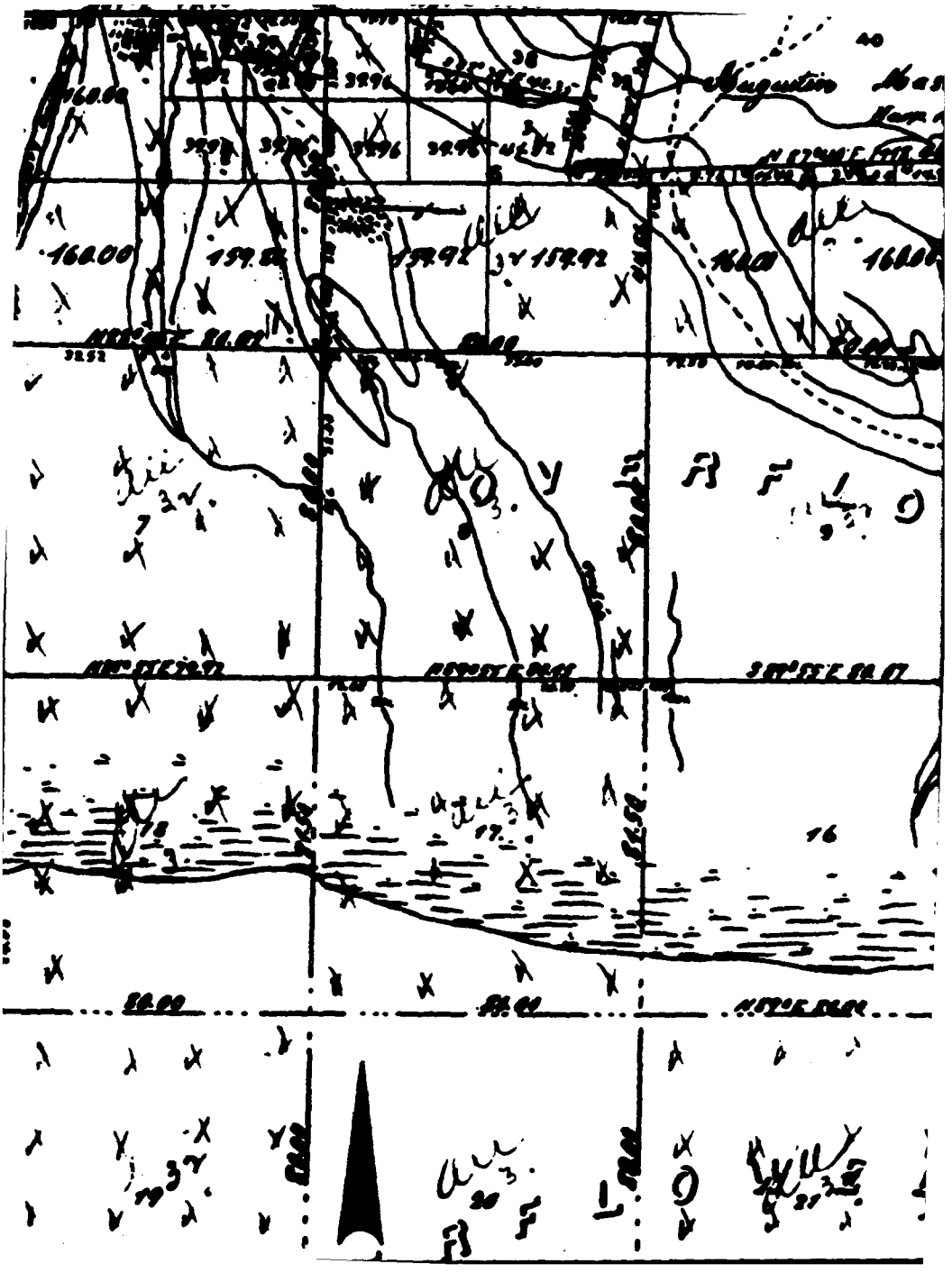

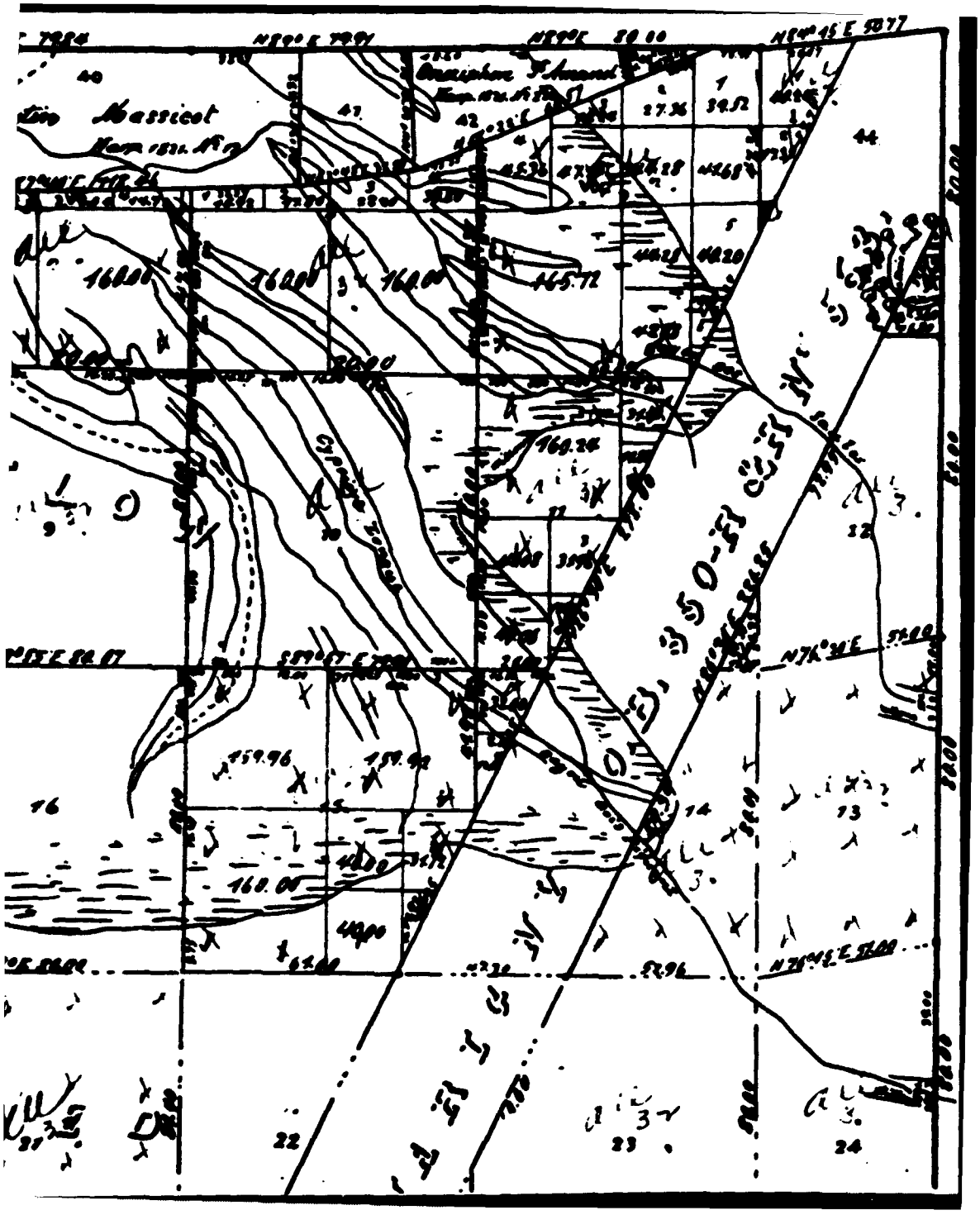

Table 3. 1820 Census Data for Augustin Masicot's Family.

Number Free White Males	Age
1	18-26
1	26-45
1	over 45

Number Free White Females	Age
1	under 10
1	26-45

Number Male Slaves	Age
10	under 14
20	14-26
20	26-45
5	over 45

Number Female Slaves	Age
10	under 14
10	14-26
2	26-45
3	over 45

Free Male Persons of Color	Age
1	14-26

Free Female Persons of Color	Age
3	over 45

Table 4. 1830 Census Data for Augustin Masicot's Family.

Number Free White Males	Age
1	under 5
2	5-10
1	20-30
1	50-60

Number Free White Females	Age
2	5-10
1	30-40
1	40-50

Number Male Slaves	Age
8	under 10
25	10-24
20	24-36
15	36-55
4	55-100

Number Female Slaves	Age
5	under 10
20	10-24
15	24-36
4	36-55
2	55-100

Free Female Persons of Color	Age
1	10-24
1	55-100

Table 5. 1840 Census Data for the Widow Augustin Masicot's Family.

Number Free White Males	Age
1	10-15
1	15-20
1	30-40
1	40-50

Number Free White Females	Age
1	10-15
2	15-20
1	40-50
1	50-60

Number Male Slaves	Age
7	under 10
12	10-24
15	24-36
30	36-55
3	55-100

Number Female Slaves	Age
15	under 10
15	10-24
10	24-36
4	36-55
4	55-100

Free Male Persons of Color	Age
1	under 10
1	36-55

Free Female Persons of Color	Age
3	10-24
1	36-55

consisted of the uprivermost three arpents front of Section 27 and the downrivermost two arpents front of Section 25 in T.13S, R.21E, measured 80 arpents deep (Figure 21). In 1781, this parcel was apparently part of a six arpent front farm that was included in the probate inventory of Dominique Daspit St. Amand (Conrad 74:85). On October 30, 1798, Françoise Pujole, the Widow Dominique St. Amand, sold a nine by 40 arpent tract that included this particular parcel to François-Louis St. Martin, her son-in-law, for 4600 piastres (Conrad 1974:247, 300, 375). François-Louis St. Martin sold the downrivermost four arpents front of this tract to Silvain St. Amand for 2100 piastres on June 18, 1799. St. Martin then evidently sold the remainder of the property to Etienne Reine on September 10, 1804 (Taylor and Conrad 1981; Conrad 1981:7).

Silvain St. Amand sold his four arpent front parcel of land to Pierre and François St. Amand for $2,700.00 in 1804 (Figure 21) (Conrad 1981:7). François sold out his share of this farm to his brother Pierre for $2,250.00 on May 10, 1806 (Conrad 1981:31). On August 16th of that year, François purchased the entire farm from Pierre for $4,500.00 (Conrad 1981:36). That same day, François St. Amand exchanged this plantation with Charles Masicot, one of the sons of Jacques Masicot *fils* and Genevieve Grevemberg, for a three arpent front parcel adjacent to and downriver from the Masicot plantation (Figure 21) (COB 1806:345, SCP). By 1817, Etienne Reine *fils* had acquired the four arpent front parcel, since the description of the Masicot plantation in Genevieve Grevemberg's estate sale advertisement states that Reine held the upriver bounding property in that year (Courrier de la Louisiane, 10 December 1817). Thus, by 1817, Etienne Reine had reconsolidated the nine arpent front parcel that had been subdivided by François-Louis St. Martin (Figure 21).

Carlos Garcia purchased Reine's property in 1840 at a public auction for the succession of Etienne Reine *fils* and his wife Celeste Cousin. Garcia then sold the five arpent wide by 80 arpents deep tract adjacent to and upriver from the Masicot plantation to Seraphine Reine, the Widow Augustin Masicot, on January 4, 1844 for 10,700 piastres. At the time of Garcia's sale to the Widow Masicot the property had houses, buildings, and fences on it (Jean L. Labranche, 4 January 1844, SCP).

In a family meeting on December 2, 1848, the Widow Augustin Masicot, requested permission to sell the Masicot plantation in order to satisfy her husband's heirs. The plantation was described as being formed by the 21 arpent wide property originally bought by Augustin Masicot and the

five arpent wide tract formerly owned by Etienne Reine. The depths of the tracts were not mentioned. Cattle, other animals, and farming utensils were included. The slaves would be sold separately or in families. There was no mention of the number of slaves or any details about them in the record of the family meeting (François Chaix, 2 December 1848, NONA).

The estate of Augustin Masicot was sold at public auction early the following year. The real property and most of the slaves were purchased by Emile Tanerede (Tanneret). The 21-arpent front sugar plantation was 80 arpents deep and located on the right bank of the river about 21 miles above New Orleans. Located on this property were

> a large dwelling house, 5 small houses, kitchen, hospital, store, pigeon houses, blacksmith shop, shed, horse corn mill, sugar & drayning (sic) houses, a set of 6 kittles (sic) 4 of which in copper & 2 in wrought iron, steam engine mill of 16 horsepower, corn mill attached to the same, stable, 19 negroes cabin & c (sic), with canes [____] to plant about 150 acres and about 60 arpents of new ratoons with high wooded land in the rear and about 100 cords of wood cut at about 35 arpents from the river (François Chaix, 9 February 1849, NONA).

Tanerede paid $40,000.00 for this property. The adjoining five arpent front tract was 80 arpents deep and located on the right bank about 22 miles above New Orleans. It had 90 arpents of new ratoons and a canal that was approximately 12 to 14 feet wide with a levee on its side. This canal accessed the high lands at the rear of the property. These high lands were part of the distributary channel and natural levee system discussed in Chapter 2. The five arpent front tract was sold to Tanerede for $10,000.00. Tanerede purchased 136 of the plantation's 140 slaves for $50,756.00. The other four slaves were sold to various people for a total of $1,010.00 (Table 6). The cattle, farming utensils, wood, and other equipment were sold to various people for a total of $3,996.27 1/2 (François Chaix, 9 February 1849, NONA).

The inventory of the slaves from the estate auction (Table 6) warrants further attention. Sixteen of the 140 slaves were classified as house servants or performed non-field tasks such as cook, seamstress, or coachman. Fourteen of the house servants were women. Eight of the men and four of the women could be classed as skilled laborers. These

Table 6. Slaves Purchased by Emile Tanerede from the Estate of Augustin Masicot, 1849 (François Chaix, 9 February 1849, NONA). Slaves not Purchased by Emile Tanerede are Marked by an Asterisk.

SINGLE SLAVES

Name	Age	Sex	Price
Alfred coach driver, engineer house servant	30	M	$ 700
Alexandre field hand, cartman ploughman	19	M	600
Antoine field hand, cartman "somewhat of a cook"	26	M	900
Auguste field hand	32	M	210
Barnabe field hand, cartman ploughman	20	M	800
Barthelmy field hand, cartman ploughman	19	M	800
Bernard field hand, cartman ploughman	20	M	600
Bazile field hand, cartman ploughman	24	M	500
Ben field hand, cartman ploughman	28	M	600
Bethencourt carpenter, bricklayer cooper, corker, "well understood in a sugar house, somewhat of a blacksmith"	55	M	800

Table 6, continued.

Name	Age	Sex	Price
Blow field hand, cartman ploughman	28	M	600
Boucandou field hand	40	M	110
Billy field hand, cartman ploughman	40	M	600
Branch field hand	33	M	360
Coussou field hand	55	M	300
Daniel Anglais field hand, cartman ploughman, "well understood in the sugar house"	44	M	840
Dick field hand, cartman ploughman, attempted to run away several times	34	M	710
Edmond hunter, cooper, "well understood in a sugar house, (blind of an eye)"	40	M	800
Eugene field hand, cartman ploughman, corker	19	M	860
François field hand, cartman ploughman	28	M	900
Georges field hand	55	M	150

Table 6, continued.

Name	Age	Sex	Price
Gilbert field hand, cartman ploughman	20	M	800
Hilaire field hand	65	M	150
Hyppolite field hand, cartman ploughman	58	M	300
Joshua field hand, blacksmith engineer, has a hernia	33	M	1300
Joe field hand, cartman ploughman	40	M	800
Joseph ox driver	65	M	300
Laurent field hand	18	M	500
Louis Dackey field hand, cartman ploughman	35	M	700
Louis Julienne field hand, cartman ploughman	35	M	500
Mack field hand, cartman ploughman	40	M	500
Mambiala field hand	50	M	150
Mathurin field hand, cartman ploughman	48	M	500
Monday field hand	50	M	290

Table 6, continued.

Name	Age	Sex	Price
Osse field hand	60	M	200
Peter field hand, cartman ploughman	35	M	600
Remy field hand, cartman ploughman	55	M	550
Taya field hand, cartman ploughman	32	M	600
Jean Louis basket maker, sugar maker	70	M	50
Léandre field hand has a hernia	65	M	160
Baquet field hand, crippled has epilepsy	65	M	10
William	11	M	400
Voltaire	15	M	650
Lindor has been a runaway for ten years	--	M	1
Valere driver	55	M	200
Josephine	12	F	500
Marianne	17	F	500
Aimee field hand	38	F	205
Frosine	13	F	400

Table 6, continued.

Name	Age	Sex	Price
Benedicte crippled	60	F?	25
Celestine house servant	19	F	600
Pauline house servant	17	F	1000
Dakey midwife	65	F	25
Henriette house servant, washerwoman	55	F	150
Jose house servant, has "fits"	17	F	300
Julienne crippled	70	F	20
Louise crippled	65	F	20
Marie Louise washerwoman, ironer house servant	28	F	1450
Marie Louise crippled	75	F	5
Marie St. Amand field hand	48	F	120
Matoumba field hand blind in one eye	60	F	170
Marie Jeanne crippled	85	F	5
Petite Marie sickly, field hand	35	F	300

Table 6, continued.

Name	Age	Sex	Price
Honorine	13	F	400
Pauline	52	F	50
Marie Chabee field hand	40	F	290
Eugenie crippled	60	F	5
Claire sickly, field hand	45	F	5
Sylvie	11	F	600
Mathilde	11	F	600
Bill* field hand, cartman ploughman, has a hernia and "dropsied"	45	M	190
Casimir* field hand	46	M	15
Melarie* house servant	19	F	800
Vincent* a crippled idiot	40	M	5
<u>SLAVE FAMILIES</u>			
Abraham field hand, cartman ploughman and	47	M	
Helene (his wife) "somewhat of a cook"	45	F	800

Table 6, continued.

Name	Age	Sex	Price
Alexis field hand, cartman ploughman and	40	M	
Bethey (his wife) seamstress house servant	40	F	
Ovide	8	M	
Constance	4	F	
			1200
Daniel Dackey field hand, cartman ploughman and	39	M	
Lalie (his wife) field hand	24	F	
Theodore	6	M	
Charles	4	M	
Moise	3	M	
			1300
Henry field hand, cartman ploughman, cooper and "well understood in the sugar house" and	46	M	
Mary Lorio (his wife) field hand	40	F	
Thomas	8	M	
Raphael	5	M	
Frederick	3	M	
Henry	2	M	
Lucinda	1 month	F	
			2100
Isaac field hand, cartman ploughman and	46	M	
Celeste (his wife) cook	35	F	
Louise	8	F	
Macaise	3	?	
Laira	1	F	
			1500

Table 6, continued.

Name	Age	Sex	Price
Pierre	60	M	
carpenter, wheelwright cooper and			
Nancy (his wife)	40	F	
Catherine	8	F	
Eve	5	F	
			1000
Michel	40	M	
coach driver and			
Henriette Anglaise	40	F	
(his wife), field hand			
Juliette	9 1/2	F	
Michel	7 1/2	M	
François	5 1/2	M	
Louison	3 1/2	?	
Arsene	2	?	
			1600
Charlotte	40	F	
field hand, "sickly and subject to fits"			
Isabel	8	F	
Lucie	6 1/2	F	
			410
Mesa	28	F	
house servant, washer-woman, ironer			
Adele	5	F	
Adrien	2 1/2	M	
			1550
Charlotte Chabee	35	F	
house servant, washer-woman, ironer			
[ ]	9	?	
Desiree	6	F	
Louis	3	M	
Henriette	2	F	
Marie	7 months	F	
			1800

Table 6, continued.

Name	Age	Sex	Price
Sophie	24	F	
house servant			
Coussain	8	?	
Louis	5	M	
			1000
Caroline	23	F	
house servant			
Melite	5 1/2	(F)	
Marthe	4	F	
Jacki	1	F	
			1300
Felonise	17	F	
field hand			
Helene	5 months	F	
			800
Amy	21	F	
house servant			
Delia	4	F	
Aisson	9 months	M	
			900
Delphine	16	F	
field hand			
(Jacquet)	4 months	M	
			900
Catiche	26	F	
field hand			
Liberte	2 1/2	(F)	
Adathee	5 months	?	
			900
Amelaye	25	F	
house servant, cook			
washerwoman, ironer			
has a hernia			
Hyacinthe	8 1/2	F	
Genevieve	6 1/2	F	
			1000

included two cooks, a seamstress, a midwife, engineers, coopers, a blacksmith, a hunter, and four men who were skilled at sugar making. Some of the men had multiple skills, such as Bethencourt, who was a carpenter, bricklayer, cooper, corker, and was "well understood in a sugar house, [and] somewhat of a blacksmith" (François Chaix, 9 February 1849, NONA). Bethencourt was valued at $800.00, despite his advanced age; his unskilled contemporaries were valued at $150.00 to $300.00. Similarly, skills apparently mitigated health problems. The most highly valued man was Joshua, who was a field hand, a blacksmith, and an engineer and who sold for $1300.00, despite the fact that he had a hernia. Two women, Pauline and Marie Louise, were valued at $1000.00 and $1450.00, respectively. Both were house servants, and Marie Louise was also a washerwoman and ironer.

The inventory indicates that the Masicots did not discourage their slaves from maintaining family ties. Thirty-four of the slaves were listed in family units consisting of two parents and children under the age of 10 (as per Louisiana law that children younger than 10 could not be separated from their mothers). Then too, the midwife was named Dakey, and Louis Dackey and Daniel Dackey were noted in the inventory. Since the midwife was 65 years old, it is likely that the two men in their thirties were her sons.

While Genovese (1972:452-454) notes that southern slaveholders generally recognized the importance of the family relationships of their slaves, he also paraphrases J.W. Metcalfe, who indicates that Louisiana planters were less sensitive to blood ties than their Virginia counterparts. Then too, the listing of family groups other than mothers with children under 10 years of age is rare in southeastern Louisiana slave inventories (Yakubik, personal observation). This then raises the issue of the status of the 10 women with children but without husbands listed on the inventory, particularly if, as White (1985:106) suggests, marriage was a license for parenthood, rather than sexual relations. In some cases, their husbands may have been slaves on neighboring plantations (Genovese 1972:472-473). The two young women with infants may not yet have formalized their relationship with the fathers of their children (Gutman 1976:191). Then too, slave communities did not condemn childbearing outside of marriage (White 1985:109; Genovese 1972:465; Yakubik et al. 1986:154).

The youngest woman with a child in the inventory was only 16, and the ages of the mothers and children suggests that women were generally in their late teens when they bore

their first child. As noted above, Louisiana law prohibited the sale of children below the age of 10 from their mothers. This should not suggest that children older than 10 were necessarily worked as hard as adult slaves. Genovese (1972:502-505) indicates that children were usually introduced to work gradually. This seems to have been the case on the Masicot plantation, since the children below the age of 15 and one girl of 17 are listed without specific occupation.

Fifteen of the slaves were at least 60 years old, and the oldest was 85. Of these, only nine were listed as being infirm. Most of these were listed as crippled, likely as the result of arthritis. A total of seven men and 12 women were noted as having infirmities.

Although Emile Tanerede (husband of Augustin Masicot) was listed as the sole buyer of the Augustin Masicot plantation in 1848, he evidently acted in conjunction with his brothers-in-law, François Reibaud (husband of Aimee Masicot) and Jacques Masicot. When discrepancies were discovered between the boundaries of the plantation and the public lands, these three decided to preserve the unbroken property lines of their holdings, as represented by the original titles, by selecting Sections 26 and 44 (totalling 234.62 acres) in T.13S, R.21E from the Land Office of Louisiana. The acquisition of Sections 26 and 44 was recorded by Charles Fitz in the Register of the Land Office on May 11, 1852 (Theodore Guyol, 12 May 1852, NONA).

Other information also indicates that Reibaud and Jacques Masicot were partners with Tanerede. The 1850 Federal Census listed 26-year-old Jacques Masicot as a planter and the head of household for the plantation. François Reibaud, described as a French-born Commodore, also resided here with his wife, Aimee. The extended family on the plantation, however, did not include Emile Tanerede and his wife, Augustin Masicot. Also living on the Masicot plantation was the overseer and his four children plus a free mulatto carpenter and 141 slaves. The census recorded the slaves' owners as Tanerede and his brother- (or brothers-) in-law (Table 7).

On May 12, 1852, Ezra Davis purchased the sugar plantation from Pierre Emile Tanerede, François Reibaud, and Jacques Masicot for $125,000. The sale included:

Table 7. 1850 Census Data for Jacques Masicot's Family.

Name	Age	Sex	Occupation
Jacques Masicot[1]	26	M	Planter
François Reibaud[2]	46	M	Commodore
Aimee Masicot	29	F	
Heloise Masicot	24	F	
Heloise Kennedy	9	F	
Widow Augustin Masicot	63	F	
Seraphine Chalere	50	F	
Seraphim Trepagnier	18	M	
Robert Chapman[3]	30	M	Overseer
Thomas Chapman	7	M	
M. Jane Chapman	6	F	
Robert Chapman	4	M	
Elisa Chapman	1 1/2	F	
Casimir [4]	45	M	Carpenter

The census taker listed the ethnicity of all the following slaves as Black.

Number of Slaves	Age	Sex
1	60	M
1	58	M
1	56	M
1	54	M
2	52	M
3	50	M
2	47	M
3	46	M
2	45	M
3	44	M
2	43	M
3	40	M

---

[1] Jacques Masicot owned $120,000.00 in real estate.

[2] François Reibaud was born in France.

[3] Robert Chapman was born in Kentucky.

[4] Casimir was a free mulatto.

Table 7, continued.

Number of Slaves	Age	Sex
2	38	M
3	35	M
2	32	M
3	30	M
2	28	M
3	26	M
4	25	M
2	24	M
3	22	M
2	20	M
2	18	M
2	17	M
2	15	M
2	10	M
1	8	M
2	7	M
3	5	M
1	3	M
1	2	M
4	50	F
2	48	F
2	47	F
2	46	F
2	45	F
2	43	F
2	42	F
3	40	F
2	37	F
3	35	F
2	32	F
1	31	F
2	30	F
2	28	F
2	25	F
2	20	F
2	18	F
2	16	F
2	15	F
3	14	F
3	12	F
3	10	F
2	8	F
2	7	F
2	6	F
3	5	F
3	4	F

Table 7, continued.

Number of Slaves	Age	Sex
3	3	F
4	2	F
4	1	F
1	9/12	F
1	6/12	F

> all the buildings and improvements thereon: engines, machinery, farming utensils, implements of husbandry, 35 mules, 1 mare and colt, 8 oxen, 25 cows and calves, 5 hogs, 60 sheep (Theodore Guyol, 12 May 1852, NONA)

and 72 adult slaves plus their children (Table 8). According to the act of sale, the plantation and slaves had been purchased by the sellers from the widow and the succession of the late Augustin Masicot (Theodore Guyol, 12 May 1852, NONA).

The dramatic decrease in the plantation slave population over a three-year period suggests either an increase in the death rate or the sale of many of the slaves. Since twenty-five of the slaves in 1852 were listed as elderly and/or sickly, the latter seems a more likely possibility. All of the slaves listed in the 1852 inventory could be identified as slaves listed in the 1849 inventory, if one makes allowances for age discrepancies and names being anglicized. The age differences between the two inventories suggest that record-keeping on the slaves was probably poor, and that at least the recorder of the second inventory estimated the slave's ages. Particularly dramatic is Juliette (Juliet), who is listed as the nine- and one-half-year-old daughter of Michel and Henriette Anglaise (Harriet) in 1849 and as being 18-years-old three years later. This raises the possibility that Juliette was in fact somewhat older than nine in 1849, and that her parents, knowing she could not be separated from her mother until she was 10, lied about her age. It is also possible that three years later Juliette was obviously post-pubescent and mature looking, and that her age was over-estimated.

Comparison of the two inventories indicates that the vast majority of slaves present in 1849 and absent in 1852 were young women with their children. Figure 24 illustrates this. Individuals listed in 1849 but not listed in 1852 were grouped by 10-year cohorts of their age in 1849. In cases of children listed with their mothers, only children whose mothers were still on the plantation in 1852 were counted.

Presumably the individuals recorded as being over fifty and probably those over forty in 1849 died during the three years between inventories. Similarly, the one child under 10 may have succumbed to a fatal childhood illness. But the absence of a total of 13 women who were between the ages of 10 and 29 in 1849 indicates the sale of females of prime childbearing age (Figure 24). In addition, 10 of these women were listed as being house servants in 1849, and thus,

Table 8. Inventory of Slaves sold to Ezra Davis by Tanerede, Masicot, and Reibaud, 12 May 1852 (Theodore Guyol, 12 May 1852, NONA)

Name	Age	Sex	Occupation/Other Comments
Abraham	42	M	
Alexander	25	M	has a rupture
Alexis	40	M	
Benaby	25	M	
Barthelemy	21	M	
Bazil	25	M	
Bedancon		M	aged
Blue	30	M	
Becandeau		M	aged, cripple
Billy	45	M	
Branch	35	M	
Cusach		M	an old field hand
Danl. Angle		M	an old man and sickly
Danl. Darkey	40	M	
Dick	35	M	
Eugene	21	M	
François	25	M	
Gilbert	20	M	
George		M	an old Congo
Eli		M	aged Congo
Harry	40	M	driver
Paulite		M?	a good old field hand
Isaac	40	M	Foreman of ploughs, Cooper & Sugar maker
Joshua	40	M	blacksmith and engineer
Joe	40	M	good Sugarboiler
Jose		M	an old man; good field hand
Lawrence	18	M	
Louis Darkey	38	M	
Louis Julian	38	M	
Mark		M	an old man
Mobiela		M	an old Congo, lazy
Mathurin	40	M	
Mundy	61	M	
Hosea	63	M	
Peter	38	M	
Pierre	63	M	carpenter
Remy	58	M	
Yaya	20	?	
John Lewis	73	M	

Leandre	68	M	
Baquet	68	M	
Michel	18	M	
William	13	M	
Vallain		M	driver; an old man
Antoine		M	sickly
Ben	40	M	
Alfred	25	M	house servant, groom, engineer
Ellen	40	F	and 3 young children
Betsey	40	F	and 2 young children
Charlotte	33	F	subject to fits, and her two daughters aged ten and eight years respectively
Delphine	30	F	and her son aged four years
Nancy		F	sickly; has a daughter
Amy	35	F	diseased womb
Catise		F	and her two children
Mary Ann		F	and her daughter
Julia Ann		F	old
Mary St. Amant	30	F	
Matomba		F	an old Congo woman
Little Mary	30	F	sickly
Lorine	18	F	
Mary Tabby		F	
Lalie	25	F	and her three sons
Marie Louise		F	and her five children
Harriet	30	F	and her six children
Juliet	18	F	
Darkey		F	an old woman
Jenny		F	an old woman
Mary Louise		F	old and blind
Mary Louise		F	children's nurse; old
Mary Jane		F	old and crippled
Clara		F	an old woman
Celeste	35	F	has three daughters

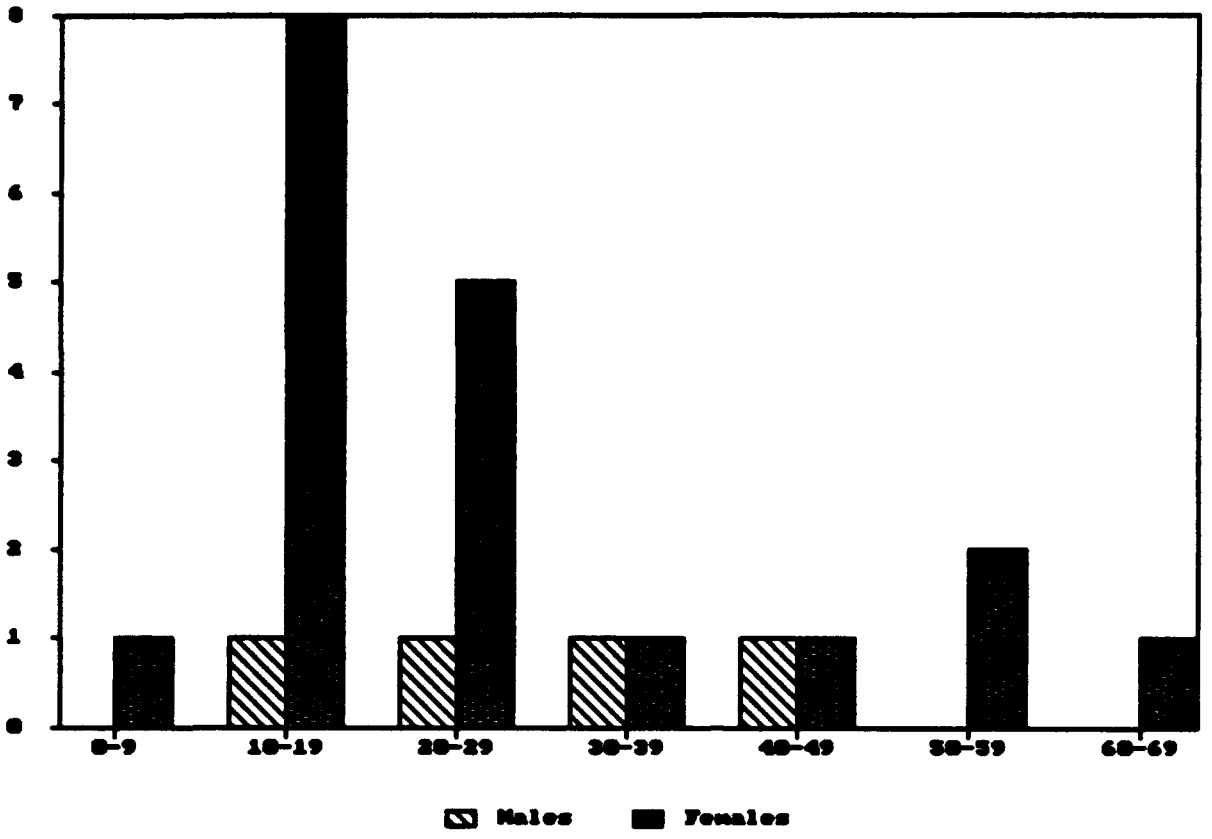

Figure 24. Graph of ages of slaves grouped in 10-year cohorts for individuals shown on the 1849 inventory but absent from the 1852 inventory.

were undoubtedly less crucial to the operation of the plantation than were the field hands. This, along with the sale of a plantation that had been in the Masicot family for at least 75 years, strongly suggests that Tanerede, Reibaud, and Masicot had severe financial difficulties. Table 9 confirms that problems began the year they purchased the plantation, when the entire sugar crop was lost as a result of the Fortier crevasse. Small yields (125 and 110 hogsheads) the next two years compounded the problem, and probably forced the sale of the estate.

Interestingly, although family units other than mothers and children were not listed in the 1852 inventory, there is only one instance of a woman, recorded as married with children in 1849, who is not mentioned in 1852. Initially it appeared that Mary Lorio and her five children had been sold away from her husband Henry. However, Marie Louise, who was one of the few house servants retained on the plantation, is listed with five children in 1852, although she was childless in 1849. It seems likely that Mary Lorio, who was 40 in 1849, died, and that Marie Louise took in her children.

Ezra Davis initially had great success with the plantation, and he produced an astonishing crop of 675 hogsheads in 1854. By the end of the 1850s, however, repeated mediocre to poor crop yields undoubtedly were causing financial hardship (Table 9). On November 14, 1859, Ezra Davis mortgaged his plantation to the Citizens' Bank of Louisiana for $200,700.00. Davis Plantation had been appraised by P. Sauve and A. Lanfear for $213,500.00. A brief description stated that the plantation was comprised of a 21-arpent front tract and a five-arpent front tract, both 80 arpents in depth. Located on the property were various buildings and improvements along with engines, machinery, farming utensils, husbandry implements, mules, oxen, horses, cows, and calves.

Also included in the mortgage were 81 slaves (Table 10) (Adolphe Boudousquie, 14 November 1859, NONA). Comparison with the 1849 and 1852 slave inventories indicates that Davis had purchased few, if any slaves since acquiring the plantation. With the exception of the children 10 years old and under, only Jackson (19), Jane (21), and Marie (15) could not be precisely identified as individuals appearing on the 1849 inventory. Given that slave names were often capriciously changed (Genovese 1972:445), it cannot be said with certainty that these young people did not grow up on the plantation.

Table 9. Sugar and Rice Crops Produced at Davis Plantation (Chapomier 1850-1862; Bouchereau 1869-1917).

SEASON ENDING	OWNER/MANAGER	SUGAR IN HHDS	RICE BBLS
1850[1]	E. Tanneret, Riebeau & Co.		
1851[2]	Tanneret, Riebeau & Co.	110	
1852	Tanneret, Riebeau & Co.	125	
1853	Ezra Davis	235	
1854	Ezra Davis	675	
1855	Ezra Davis	240	
1856	Ezra Davis	285	
1857	Ezra Davis	105	
1858	Ezra Davis	180	
1859	Ezra Davis	145	
1860	Ezra Davis	240	
1861	Ezra Davis	207	
1862	Ezra Davis	450	
1870[3]	L. Ferriere		
1871	Louis Ranson & Co.		
1872	Louis Ranson & Co.		
1873[4]	Citizens Bank		20
1874	Clement Colly and Co.		960
1875	Clement Colly and Co.		515
1876	St. Charles Homestead and Mutual Benevolent Aid Assoc.		637
1877	St. Charles Homestead and Mutual Benevolent Aid Assoc.		1730
1878	St. Charles Homestead and Mutual Benevolent Aid Assoc.		1800
1879	St. Charles Homestead and Mutual Benevolent Aid Assoc.		1542
1880	St. Charles Homestead and Mutual Benevolent Aid Assoc.		380
1881	St. Charles Homestead and Mutual Benevolent Aid Assoc.		2085
1882	St. Charles Homestead and Mutual Benevolent Aid Assoc.		1526

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[1] Crop lost to overflow (from Fortier Crevasse)

[2] Steam-powered mill

[3] Steam-powered mill, kettles used for processing sugar, brick sugar house with a shingle roof

[4] Sugar house destroyed

Table 9, continued.

SEASON ENDING	OWNER/MANAGER	SUGAR IN HHDS	RICE BBLS
1883	E. King and others		6400
1884	E. King et als.		4500
1885	C.T. Dugazon		
1886	O.T. Dugazon		3080
1889	John Louque		no yield
1890	John Louque		3812
1897	John E. Louque		
1898	John E. Louque		
1899	John E. Louque		
1900	John E. Louque		
1901	John E. Louque		
1902	Levert and Crozier		
1903	Levert and Crozier		
1904	J.B. Levert		
1905	J.B. Levert		
1906	J.B. Levert		
1907	J.B. Levert		
1908	J.B. Levert		
1912	J.B. Levert		
1913	J.B. Levert		
1914	J.B. Levert		
1915	J.B. Levert		
1916	J.B. Levert		
1917	J.B. Levert		

Table 10. Inventory of Slaves Mortgaged by Ezra Davis, 14 November 1859 (Adolphe Boudousquie, 14 November 1859, NONA)

Name	Age
Hosea	60
Mundy	65
Cusher	60
_____ Lewis	60
Ramey	60
Vallain	60
Beteman	60
Pierre	55
Lewis	55
Louis Julian	50
Isaac	50
Branch	50
Harry	48
Joe	48
Joshua	48
Abraham	48
Alexis	48
Billy	48
Antoine	48
Alfred	45
Blue	45
Peter	45
Dick	45
Gilbert	42
Alexander	42
Ben	42
Yigen	40
Benabe	40
Eugene	35
Bazil	35
Bertame	35
Lorah	25
William	22
Jackson	19
Tom	19
François	17
Rafael	16
Charles	15
Moise	15
(Dankee)	70
Louise	70
Julienne	70
Mary St. Amant	48
Celeste	48
Betzy	48

Table 10, continued.

Name	Age
Nancy	48
Ellen	48
Claire	48
Charlotte	45
Amey	45
Little Mary	45
Catice	30
Mary Ann	30
Delphine	30
Lorine	30
Jane	21
Juliet	21
Isabel	18
Louise	18
Lucy	15
Louison	15
Eve	15
Marie	15
Constance	14
Menche	14
Henry	11
Andre	10
Firman	9
(Synoie)	8
Jacco	8
Jerry	6
John	4
Anthony	2
Sambo	1
Eliza	9
Datie	9
Harriet	9
Lucinda	9
Rose	8
Lizzie	7
Cora	2

Figure 25 graphs the frequencies by sex within 10-year cohorts of individuals listed in the 1852 inventory that could not be identified in the 1859 inventory. Ages were based on those given in the 1849 inventory. Again, it is possible that some of the children listed in 1849 appear under a different name in 1859, thus, the frequency of the 0-to-9-year-old group may be inflated. The figure indicates that it is likely that most of the individuals absent from the 1859 inventory died rather than were sold, since the majority of them were younger than nine or older than 40.

In 1860, the 50-year-old Ezra Davis was the sole white resident of Davis Plantation. He owned 51 male and 33 female slaves. The slaves were housed in 32 slave houses (Table 11). The real estate of this Massachusetts-born planter was valued at $175,000.00 (1860 Federal Census). During the spring and summer of 1860, J. W. Dorr, a correspondent with the New Orleans Crescent, toured Louisiana by horse and buggy. He described Ezra Davis as one of the "solid men" of St. Charles Parish in terms of wealth, land, and slaves (Prichard 1938:1110, 1114-1115).

Davis owned the plantation until the mid-1860s. After a difficult period in the late-1850s, Davis' sugar crop yields improved (Table 9). It is likely that the plantation was well on the way to recovery at the onset of the Civil War, which had a devastating effect on all of the region's plantations. Evidently Davis could not meet his mortgage obligations, because the Citizen's Bank of Louisiana brought suit against him. The former acquired the plantation at a sheriff's sale on March 2, 1867 by virtue of a writ of seizure and sale dated November 27, 1866 (Felix Grima, 22 September 1868, NONA). This was the first of many seizures of Davis Plantation due to the nonpayment of mortgage.

Louis Lalande Ferriere bought the property on September 22, 1868, for $38,000.00, but the $200,700.00 mortgage to the Citizens' Bank of Louisiana was still outstanding. At the time of Ferriere's purchase, Davis Plantation was described as a sugar plantation located on the right bank of the Mississippi River about 21 miles above New Orleans. It was 26 arpents wide and 80 arpents in depth. It had a dwelling house, outhouses, slave cabins, stables and a sugar house containing an engine and machinery with an attached purgery (Felix Grima, 22 September 1868, NONA). The sugar and rice reports provide further detail on the sugar house. It was constructed of brick and it had a shingle roof. The plantation had a steam-powered mill, and kettles were used for evaporation (Bouchereau 1870).

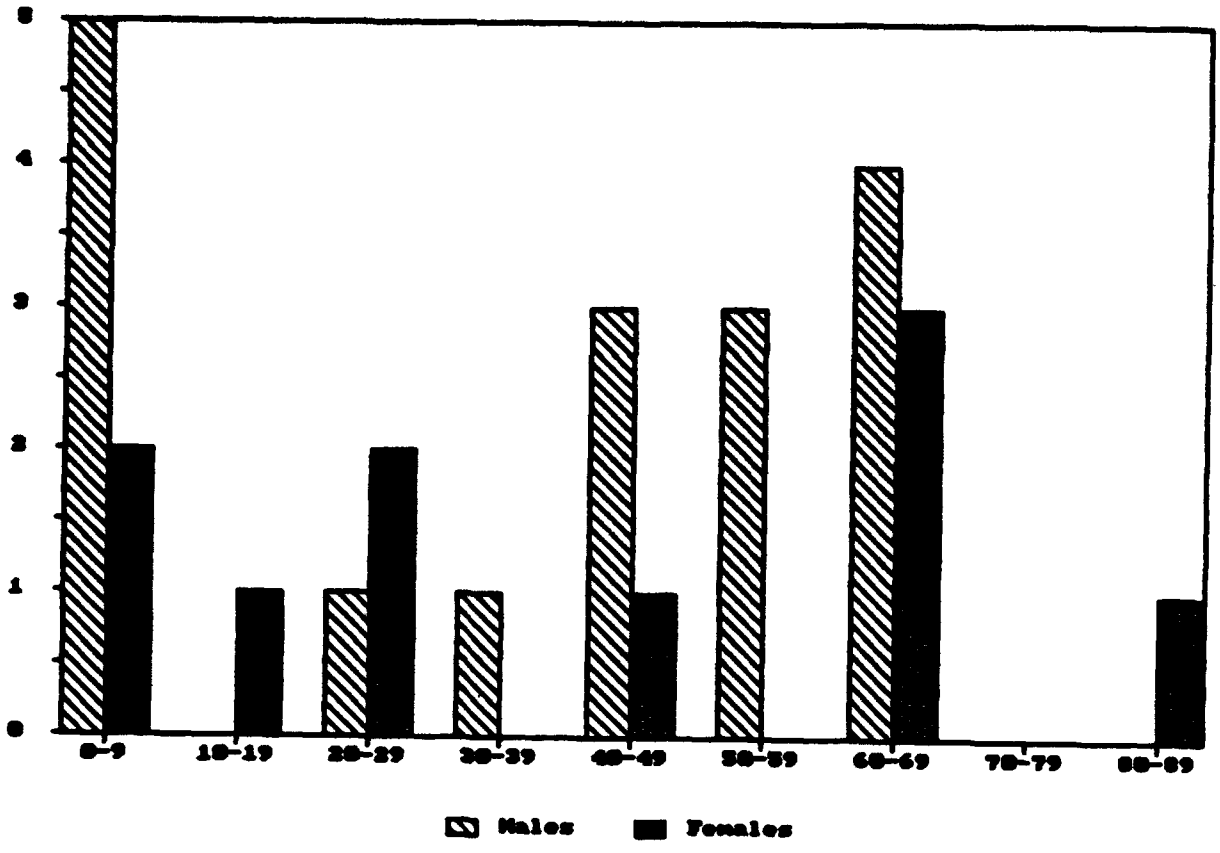


Figure 25. Graph of ages of slaves grouped in 10-year cohorts for individuals shown on the 1852 inventory but absent from the 1859 inventory.

Table 11. 1860 Census Data on Ezra Davis' Slaves.

Number of Slaves	Age	Sex	Ethnicity
1	70	M	Black
4	65	M	Black
1	65	M	Mulatto
1	60	M	Black
4	55	M	Black
1	55	M	Mulatto
3	53	M	Black
1	53	M	Mulatto
3	50	M	Black
1	50	M	Mulatto
1	46	M	Mulatto
3	46	M	Black
3	40	M	Black
2	40	M	Mulatto
2	35	M	Black
1	35	M	Mulatto
1	29	M	Black
3	21	M	Black
3	17	M	Black
1	17	M	Mulatto
3	10	M	Black
2	10	M	Mulatto
1	7	M	Black
1	5	M	Black
1	3	M	Black
1	2	M	Black
1	6/12	M	Mulatto
1	8/12	M	Mulatto
2	75	F	Black
4	50	F	Black
2	50	F	Mulatto
3	48	F	Black
1	48	F	Mulatto
3	30	F	Black
1	30	F	Mulatto
2	23	F	Black
3	18	F	Black
1	18	F	Mulatto
2	15	F	Mulatto
2	14	F	Black
2	10	F	Black
1	10	F	Mulatto
1	9	F	Black
1	7	F	Black
1	3	F	Black
1	2	F	Black

Ferriere held the plantation just over one year, and he apparently did not produce a sugar crop during the period that he held the plantation (Table 9). In the suit of The Citizens' Bank of Louisiana vs. L. L. Ferriere, the 4th Judicial District Court of Louisiana issued a writ of seizure and sale against Ferriere's plantation on October 20, 1869. The plantation was sold at public auction on December 4, 1869 to the Citizens' Bank of Louisiana (#24, 4th JDC).

On October 12, 1871, the Board of School Directors for the Parish of St. Charles purchased one square acre which fronted the river road in the upper corner of Davis Plantation from the Citizens' Bank for $100.00 (Felix Grima, 12 October 1871, NONA). That same year, John W. Hallisey and D. C. Brown agreed to purchase Davis Plantation, less the one acre, for $31,000.00 on October 30, 1871. Brown later renounced his right to purchase, so Hallisey became the sole buyer of the plantation. Located on the plantation at the time of Hallisey's purchase were two boilers, one cylinder, one tank, three old sugar kettles and one lot of iron (Citizens' Bank of Louisiana vs. J. W. Hallisey, #603, Superior District Court of the Parish of Orleans).

Several African-American families lived on Davis Plantation during J. W. Hallisey's brief ownership. It is likely that these Freedmen were former slaves at Davis or at neighboring plantations. While many Freedmen exercised their right to move off the plantation following Emancipation, data from the east bank of St. Charles Parish indicate that it was not uncommon for African-Americans to continue to reside or even purchase land on the plantation where they formerly had been held in bondage. In fact, a group of African-Americans wanted to purchase sections of the Davis Plantation for themselves, so Hallisey hired a surveyor to lay out lots on the property. A few men bought parcels, but most did not have enough money to do so (J. W. Hallisey vs. Citizens' Bank of Louisiana, #7474, Eighth District Court of the Parish of Orleans). Hallisey sold all the engines, boilers, and machinery on the plantation. He also cleared about 40 or 50 acres and cut 100 cords of wood on the plantation (J. W. Hallisey vs. Citizens' Bank of Louisiana, #7474, Eighth District Court of the Parish of Orleans).

The sugar and rice reports from this period indicate that no sugar crop was produced during the period of Hallisey's ownership, although the sugar house was still extant at this date (Bouchereau 1871-1872). Evidently a Louis Ranson and Co. managed the plantation for Hallisey, who lived in New Orleans. Ranson's management was

presumably inadequate, since Hallisey had trouble meeting his mortgage payments. Only $3,923.50 was ever paid toward his debt (Citizens' Bank of Louisiana vs. J. W. Hallisey, #603, Superior District Court of the Parish of Orleans). Davis Plantation was appraised at $22,500.00 on May 30, 1872 (Citizens' Bank of Louisiana vs. J. W. Hallisey, #33113, Fourth District Court for the Parish of Orleans).

The Citizens Bank of Louisiana brought a suit against Hallisey for not meeting his mortgage obligations. The bank again acquired the property at a public sale on November 1, 1873. At this time, Davis Plantation was described as consisting of two parcels. The upper half had a 13 arpent river frontage and was 80 arpents deep excluding the square acre sold to the school board. The downriver side of the plantation was also 13 arpents wide by 80 arpents deep (COB G:167, SCP). This was the first time Davis Plantation was described as having two equal tracts as opposed to the original 21 arpent and five arpent front tracts.

The sugar and rice reports indicated that by 1873, the Davis sugar house had been destroyed (Bouchereau 1873; Table 9). Clement Colly and Co. grew rice on the plantation between 1873 and 1875, at which time the "St. Charles Homestead and Mutual Benevolent Aid Association" began rice cultivation at the estate (Table 9). While there is no definitive proof of who this association was, it is very likely that this was a farming cooperative formed by the African-Americans residing at Davis. The group continued to farm rice at Davis until 1880.

Davis Plantation was sold by the Citizen's Bank to Octave T. Dugazon on November 6, 1882. On October 5, 1883, Dugazon sold the uppermost two arpents and 28 toises front to Frederic Toups. Toups tract was 80 arpents deep. Its upriver boundary was the former property line between the Lone Star and Davis Plantations and its downriver boundary was Davis Plantation (COB G:167, SCP; COB M:494, SCP).

The Mississippi River was rising steadily in 1884. The river was threatening or had already broken through at several places below Vicksburg, Mississippi (The Daily Picayune, 3 March 1884). Dugazon's plantation was protected by the Davis Levee, a new state-built levee that had cost approximately $800 to construct and contained 4141 cubic yards of soil. Unfortunately, the flood water problems in Louisiana were compounded by the fact that the levees that were less than one year old were not holding. Ninety percent of the crevasses were occurring in new levees. The Davis Levee broke on March 8 as the result of a poorly closed rice flume (The Daily Picayune, 22 March 1884).

Initially, the Davis Crevasse was 45 feet wide and five feet deep (The Daily Picayune, 9 March 1884). Acknowledging that the break would not be closed quickly, Chief Engineer E. A. Garvey and his crew set about building the pilings for the sandbags (The Daily Picayune, 10 March 1884). But by March 12, the crevasse had widened to 120 feet (The Daily Picayune, 12 March 1884). Five hundred men constructed a double row of pilings across the crevasse. By March 13, a third row of piles had been set up. The heavy, fifty foot piles were driven in a semi-circle around the opening of the crevasse. The first row of piles was erected in eight feet of water, the second in approximately 13 feet and the final row was driven in 20 to 22 feet of water. The piles broke the force of the water's current (The Daily Picayune, 13 March 1884). Even so, 10 more piles were erected for reinforcement on March 14 when the water was 20 to 24 feet deep. Then the pilings were filled in with sandbags and hay (The Daily Picayune, 14, 15, and 17 March 1884). The nearly impossible task of closing the crevasse was greatly hampered by heavy rains, high winds, a strong current and driftwood (The Daily Picayune, 19 March 1884).

The pilings were nearly completed on March 19 when the water broke through, destroying them (The Daily Picayune, 19 March 1884). Two days later, the repair work was abandoned (The Daily Picayune, 21 March 1884). The Davis Crevasse was 700 feet wide and 20 to 40 feet deep by March 31st (The Daily Picayune, 31 March 1884).

The torrent pouring through the Davis Crevasse and numerous other breaks in the levees was disastrous for the west bank. It threatened "the entire basin between the ridge or high lands of Bayou Lafourche and the ridge along the Mississippi River..." (The Daily Picayune, 10 April 1884). Initially, the flood waters from the river flowed into Lake Salvador and the nearby swamps, but so did flooding from the crevasses on Bayou Lafourche. The flood water and the heavy rains filled up the lake basin and the water backed up into the surrounding area (The Daily Picayune, 28 March 1884). The flood waters caused a strong current to run through Bayou des Allemands to Lake des Allemands. Water at Barataria was rising three inches every 24 hours as a result of the Davis Crevasse (The Daily Picayune, 31 March 1884).

Davis Plantation, of course, was devastated by the flood waters. The plantation house and the servants' cabins were flooded. Interestingly, the newspaper also noted that the sugar house was flooded, although the sugar and rice reports indicated that it had been destroyed by 1873 (The

Daily Picayune, 2 April 1884; Bouchereau 1873). It was announced on March 10, 1884, that pending the repair of the crevasse, freight would be sent via Morgan's Louisiana and Texas Railroad rather than the Texas and Pacific Railroad, which was 3/4 of a mile closer to the river and hence more severely affected by the crevasse (The Daily Picayune, 10 March 1884). By the beginning of April, however, both sets of tracks were under four feet of water. Approximately 20 cars had water over their wheels. The Davis train station near the crevasse was flooded, and the outbuildings had broken away from their foundations and were overturned (The Daily Picayune, 2 April 1884).

Other plantations and even the communities of Gretna and Algiers were threatened by the floodwaters (The Daily Picayune, 2 and 10 April 1884). The backwaters from the Davis Crevasse covered all the plantations from Upper Magnolia down to Myrtle Grove except for Bellechasse and Alliance. Other plantations above and below these points were also threatened by flooding (The Daily Picayune, 16 April 1884). The people of St. Charles Parish sent a committee to the Mississippi River Relief Committee to report that the homes of 2000 people were submerged and to seek assistance (The Daily Picayune, 3 April 1884). The high waters also threatened "the immediate neighborhood of the city." Gretna was flooded, and the water came within seven blocks of the river front (The Daily Picayune, 28 March 1884). In Algiers, it was recommended that a levee be built at Lapeyrouse Street to hold back the flood waters of the Davis Crevasse (The Daily Picayune, 29 March 1884). A committee comprised of the mayor, the Commissioner of Public Works, and members of the Committee on Levees was organized to study the situation (The Daily Picayune, 3 April 1884). The Lapeyrouse Street levee was probably never built.

An interesting side note to the history of the Davis Crevasse concerns the sternwheel steamer *Patrol*, which belonged to the Mississippi River Commission (The Daily Picayune, 28 March and 2 April 1884). The crew of the *Patrol* was observing the Davis Crevasse on March 27 when the ship got sucked through the opening into the middle of a cane field and ran aground against the submerged railroad track at least one-half mile from the river (The Daily Picayune, 28 March and 2, 17 April 1884). On March 28, the steamboat *Whisper* unsuccessfully tried to rescue the *Patrol* by bringing it back into the Mississippi River (The Daily Picayune, 29 March 1884). The *Patrol* would have to rescue itself by floating out through the swamps and bayous. It finally arrived in New Orleans on April 16 after following a most circuitous route:

> The *Patrol* traveled "from the crevasse along the Morgan Railroad to St. Charles Station, from the latter point across the swamp prairie in a southeast direction to Bayou Patrol (the bayou was named by the party, as the Patrol is the first steamer that ever passed through it), through this bayou to Lake Cataquatclie, across this lake to a small bayou on the southeast corner of the lake, through the latter to Lake Salvador, across this lake in a southeasterly direction to Bayou Villars, through this bayou into Bayou Barataria, thence to Bayou Des Rigolets, through the latter to Little Lake, across this lake to Grand Bayou, thence into the Great Barataria Bayou, across the latter to Fort Livingstone, on the Gulf of Mexico; from the latter point to Grand Isle; from thence to Bayou Rigoud, through this water way to Whisky Pass; through the latter to Bayou des Islets, thence to Bayou Andrew, through the latter to Caminada Bay, thence through Shell Bayou; from the latter bayou to the Terreline or South Louisiana Canal, through this canal to Bayou Lafourche, up the bayou to the Mississippi River at Donaldsonville." From this point the *Patrol* headed downriver to New Orleans (The Daily Picayune, 17 April 1884).

Davis Plantation was seized for sale on September 20, 1890, as a result of the lawsuit of O. T. Dugazon vs. Citizens' Bank of Louisiana. On November 1, 1890, the property was sold to Edward H. Lombard at public auction. The upriver portion sold for $4000.00 and the lower half for $5350.00, totaling $9,350.00 (COB I:387, SCP). A substantial (3812 barrels) rice crop was produced in 1890, but no agricultural statistics are available for Davis after this date (Table 9).

By 1903, Davis Plantation was again in the possession of the Citizens' Bank. The institution sold the property on October 29, 1903, to Mrs. Aimee Ernestine Danjean Crozier and Mr. John B. Levert for $18,000.00. Each obtained an undivided half interest in the upper and lower portions of the plantation, excluding the school board's acre and Frederic Toups' tract (COB M:494, SCP). Levert was the president of the Louisiana Sugar Planters Association in the 1890s. Interestingly, Levert and Crozier had been managing the estate since the preceding year (Table 9).

On November 23, 1905, a land exchange occurred between J. B. Levert, Mrs. Crozier and Augustus Hirsh. Levert became the sole owner of Davis Plantation and Crozier and

Hirsh became co-owners of Louisa Plantation, which was adjacent to and downriver from Davis. Crozier and Hirsch also paid Levert $3000.00 cash (Lyle Saxon, 23 November 1905, NONA). The J. B Levert Land Company still owns most of Davis Plantation today.

From January 27, 1913, to December 1, 1913, Levert leased 200 acres of Davis Plantation at $4.75 an acre to Henry Beruaby for a rice crop. Under the terms of their agreement, Beruaby was entitled to free use of one or two cabins to house his workers during the rice grassing and harvesting season. Beruaby also rented the plantation's boiler until the end of rice harvesting for $100. It was stipulated that the rice crop could not damage or interfere with the plantation's cane culture (COB R:10, SCP). This important lease agreement confirms that cane was being grown at Davis into the twentieth century. It is possible that cane was once again cultivated at both Davis and Louisa Plantations at least as early as 1890, when John Louque was managing both plantations (Table 9) although the two estates were owned by different individuals. It is also possible that Levert may have been responsible for re-establishing cane cultivation on both properties. In the 1890s, Levert had purchased at least one other great sugar plantation (Beka) that had fallen to rice cultivation during the postbellum and restored it to sugar production (Yakubik and Franks 1992:40). In this case, Edward Lombard and John Louque would have been agents for Levert's interests.

Louisa Plantation

The property now known as Louisa Plantation was consolidated into one holding in the mid-nineteenth century by the Consolidated Association of Planters of Louisiana. Louisa Plantation was comprised of Sections 29, 30, 31, 32, 38, 39, 40, and 65 in T.13S, R.21E and Sections 42 and 43 in T.14S, R.21E. It was adjacent to and downriver from Davis Plantation.

The earliest record of European ownership in or near the area that became Louisa Plantation appears on the ca. 1723 Carte Particuliere (Figure 20). A Sieur Saisnon owned a narrow tract on the right bank of the Mississippi River on the German Coast. Immediately downriver and contiguous to Saisnon's farm was a wide tract marked "Terrain au Sieur Manadé." These were the same concessions discussed in greater detail above, in the context of the ownership of Davis Plantation.

The next available reference to land that would become Louisa Plantation was on March 12, 1773, when George Rixner

sold a farm to his son, Jacques, for 10,000 livres. The property was 10 arpents front and 40 arpents in depth. Located about seven leagues above New Orleans on the west bank, it was bounded above by the property of Jacques Masicot and below by the lands of Vincent Boyeau. Also included in the sale were a pair of oxen, two cows, and three male and three female African-American slaves (Table 12) (COB 1773:503, SCP).

George Rixner resided on the German Coast at least as early as January 26, 1764 when an inventory of his property was taken in preparation for his second marriage to Anne Marie, the Widow Rene Dorvin. At that time, George Rixner's possessions included the slaves Valentain *dit* Chevalie, Jeanlouis *dit* Baptiste, Augustain *dit* Levellie, Jean Piere *dit* Nago, Babe, Andre, Marie Catherine, Marie Louise, Marie Josephe, Filipe Laffleur and his wife, Catherine, along with land, livestock, poultry, and crops. The total value of Rixner's property was 16,650 livres, of which the slaves accounted for more than half (COB 1734-1769:293, SCP). It is uncertain if any of the lands which later would become Louisa were included in the inventory because of the poor condition of the document. However, it is worth noting that Valentain, Jeanlouis *dit* Baptiste, Marie Louise, and Catherine were four of the six slaves that Rixner sold to his son in 1773 (Table 12).

Jacques Rixner, George's son, evidently purchased at least nine additional arpents front contiguous to the downriver side of his plantation prior to his death in the late 1780s. Jacques left his daughter, Therese Rixner, a plantation of nine arpents front by 40 arpents depth that had probably been his principal residence. Therese also received the animals on the property, farm implements, a white saddle horse with a saddle, a bridle, a gold mount, and sixteen slaves (COB 1788:674, SCP).

Jean-Louis Rixner, the executor of his brother Jacques' estate, subsequently sold a nine by 80 arpent farm belonging to Jacques' succession to Paul Toups for 5000 piastres of silver on November 20, 1789. The farm was described as being located about seven leagues above New Orleans on the right bank. It was bounded above by the Masicot farm and below by the succession of Jacques Rixner. It was noted in the act of sale that buildings, structures, and fences were located on the property. One hundred cypress trees on the farm were reserved for the use of Therese Rixner (COB 1789:37, SCP).

Therese Rixner, Jacques' daughter, entered into a marriage contract with François Daspit St. Amand on

Table 12. Slaves sold from George Rixner to Jacques Rixner, 1773 (COB 1773:503, SCP)

Name	Age	Sex	Other Comments
Valentin	40	M	
Batiste (sic)	45	M	
Matis	20	M?	atrophied in 1 hand
Babet	30	F	
Caterine	40	F	
Marie Louise	40	F	

April 28, 1791. She brought to the marriage the nine arpent front farm she inherited from her father, which was described as being bounded upriver by the property of Paul Toups and downriver by the property of Bonaventur Martin *dit* Bounan. She also owned 17 slaves, farming equipment, animals, and a variety of personal items (Table 13). Altogether, her dowry totalled 13,212.20 piastres (COB 1791:264, SCP). The equipment noted within the inventory indicates that indigo was produced on the farm. Indigo was in fact the most important cash crop in the region at the time. Blume (1990:93) notes that in Spanish colonial St. Charles Parish, holdings as small as eight arpents front had indigo operations.

François Daspit St. Amand brought three male slaves to the marriage. Twenty-year-old Augustin of the Nar nation was valued at 500 piastres. Polidor, age 28, and also of the Nar nation, was worth 500 piastres. Finally, 30-year-old George of the Manega nation was valued at 400 piastres (COB 1791:264, SCP).

On June 18, 1791, François St. Amand purchased a 25 foot by 15 foot wide house from Louis Lannonier, a resident of Chapitoulas, for 200 piastres. St. Amand intended to remove the house from George Rixner's property where it was located (COB 1791:203, SCP). It is possible that he planned to place the house on his newly-acquired plantation until he could build a finer residence.

François was one of the seven children of Dominique Daspit St. Amand and his wife, Françoise Pujole (Conrad 1974:247). Dominique was the son of François Daspic (Daspit) *dit* St. Amand and Marie Françoise Du Buisson. François Daspit was killed in the Natchez Massacre. Marie Françoise Du Buisson later married Antoine Meuillion, the surgeon at Pointe Coupee, who helped raise Dominique and his brother Pierre (Cruzat and Dart 1934:367-368, 567-568).

Louis Augustin Meullion, Dominique and Pierre's stepbrother, was among the most prominent planters of the German coast during the second half of the eighteenth century. He served as the Captain of the First Company of the German Coast Militia and was apparently the greatest slave holder in the parish. Meullion's principal residence was located on the east bank of the river (Voorhies 1973:263,404; Shannon et al. 1988:200). At least one of the St. Amand brothers settled on the German Coast at approximately the same time as his stepbrother Meullion. A St. Amand (without a given name) was listed as a member of Boisclair's Company of the German Coast militia in 1766. St. Amand owned six arpents of land. He and his wife are

Table 13. Dowry of Therese Rixner, 1791 (COB 1791:264, SCP).

Item	Estimated Value (in piastres)
plantation with 9 arpents frontage	1500
Black named Tome	800
Black named Anibal	650
Black named Baptiste	500
Black named Louis	500
Black named Alexandre	500
Black named Lindor	500
young Black named Prince	450
young Black named Pompee	400
young Black named Joseph	400
Black named Marianne and her 3 children	800
Black named Julie	250
Black named Adelaide	300
Black named Iris	250
Mulatress named Juennette	400
plow and equipment	30
"poor plow" and "tumbril"	16
6 felling axes and 2 broad axes	15
10 large pickaxes and 12 pickaxes for indigo	20
7 ladles	18
carpenter's tools	15
4 "poor pairs of vats, with their movements" and 1 "oingard"	100
indigo cup	3
3 1/2 pair of oxen	100
riding horse	20
2 draft horses	50
"scel de feuve"	32
walnut armoire	25
gold mount	40
wardrobe and jewels	150
furnished bed	25
Subtotal	8,865.00
Cash inheritance and various mortgages held by Therese Rixner	4,347.20
GRAND TOTAL	13,212.20

listed as having on their habitation two boys, three girls, two male slaves, one female slave, four oxen, 10 cows, 12 young bulls, and one musket. The 1770 *census* reveals that St. Amand had seven whites and 10 slaves living at his habitation and that he had produced 220 *quarts* of rice and 250 *quarts* of corn that year (Voorhies 1973:173).

As seen above, the St. Amand family owned land immediately upriver from Jacques Masicot (Figure 21) as well as in the vicinity of present-day Ama (Franks and Yakubik 1993). Antoine Daspit St. Amand, the son of François Pujole and Dominique St. Amand and the brother of François, succeeded Jacques Masicot as the Commandant of St. Charles Parish. He served in this post from 1795 to 1805 (Gianelloni c. 1965:x).

Records show that Bonaventure Martin *dit* Bounan, who owned the downriver property adjoining that of François St. Amand and Therese Rixner, sold his six arpent front by 40 arpents depth farm to Antoine Lepine for 2100 piastres on December 28, 1796 (Conrad 1974:274). However, the sale must have fallen through, because a later conveyance exists for this tract between Bounan and Alexandre Labranche, a militia officer. Labranche purchased the farm on April 5, 1800. It was located on the west bank about 7 1/2 leagues above New Orleans. It was bounded above by the property of François St. Amand and downriver by the plantation of Francisco Piseros. Several buildings were located on the property. The most prominent of these was a 28 foot long by 15 foot wide house of *bousillage* between posts construction, clad in planks with an earthen chimney. Its room configuration consisted of two rooms and a rear gallery with a small office. A 20 foot long by 10 foot wide storehouse, a rice mill, one slave cabin, and four chicken coops described as "old and small" comprised the other structures. Other improvements to the property included a fruit tree orchard, fences, and gates. Six fruit trees of his choice were reserved for the use of Antoine Lepine (COB 1800:56, SCP).

On May 30, 1800, Alexandre Labranche sold the upriver three arpents front of his property to François St. Amand for 1039 piastres. Improvements to the property included the fences, the orchard of fruit trees, and sugar cane stumps (COB 1800:217, SCP). This indicates that Labranche was experimenting with cane cultivation at an early date. In fact, sugar agriculture was readily adopted on the German Coast. Pierre Clement de Laussat, the French Colonial Prefect for the reacquisition of Louisiana by France, noted that plantations on the east bank of the *Côte des Allemands* grew both sugar and cotton. He observed 22 plantations

between that of Widow Trepagnier (Ormond Plantation) and that of Manuel Andry:

> We went on forward, traveling alongside seventeen plantations devoted to the raising of cotton and five others to that of sugar. We alighted at the last of these, that of Monsieur Andri, at whose house we dined... Only two of these sugar plantations were large enough to manufacture sugar there. The others manufactured Tafia (de Laussat 1940:105-106).

François St. Amand also apparently expanded his holdings on the upriver side of his property at the turn of the century. The June 11, 1798, issue of Moniteur de la Louisianae, Louisiana's first newspaper, advertised a German Coast plantation for sale. It was described as nine arpents front by 80 arpents in depth, and it was located on the west bank about 6 1/2 leagues above New Orleans. The property was bounded on its downriver side by the holdings of François St. Amand, while its upriver side bounded by the holdings of "Mr. Macicot." Located on this plantation were "a house thirty feet long by fifteen wide, a kitchen with pantry, a drying room, all in the sun, two pairs of copper indigo vats, a superb fish-pond, & many fruit trees of all kinds." Interested parties were to contact Mr. Dalino, Captain of the Louisiana Regiment (Holmes 1961:230,232,233-234). The size and location of the property matches that of the parcel purchased by Paul Toups subsequent to the death of Jacques Rixner (Figure 21). Although the relevant conveyances have not been located, it seems likely that the upriver three arpents front of this property were purchased by Charles Masicot. The fact that his mother Genevieve Grevemberg legally emancipated Charles in March 1798 (Conrad 1974:294) strengthens this possibility. Similarly, the downriver six arpents front were probably acquired by François St. Amand at this time.

François St. Amand and Charles Masicot exchanged small tracts of land on the right bank on August 16, 1806 (Figure 21). The tract St. Amand acquired from Masicot was three arpents wide and 80 arpents deep with fences and buildings located on it. Its upper boundary was the Masicot lands and its lower border was François St. Amand's plantation. In addition, Charles Masicot gave St. Amand four hundred piastres (COB 1806:345, SCP). Thus, by 1806, François St. Amand had consolidated 21 arpents front on the river (Figure 21).

On January 25, 1814, a public auction was held to settle the estate of François Daspit St. Amand. The largest

property for sale was a sugar plantation on the west bank located about six leagues above New Orleans. Only seven of the 21 arpents frontage had a depth of 80 arpents, despite the fact that the nine arpent front property on the upriver side of the plantation had a depth of 80 arpents (above). The remainder of the property had a depth of 40 arpents. The plantation was bounded above by the heirs of Masicot and below by Silvain St. Amand. This plantation, which would become Louisa, had "All the buildings necessary for its cultivating, as well as the gates and fences, are in the best order" (Courrier De La Louisiane, 31 December 1813). François St. Amand's estate also included a three-arpent front plantation further upriver on the west bank and a house in New Orleans. About 80 slaves, horses, oxen, cows, sheep, household furniture, and husbandry implements were included in the estate sale. Although the property to which these were attached was not specified, presumably the majority were located on the plantation. The sugar and syrup were to be auctioned, if they had not been sold by the time of the estate sale (Courrier De La Louisiane, 31 December 1813).

Although no record of the purchasers at the estate sale was located, Oneziphore St. Amand, the son of François Daspit St. Amand (Conrad 1981:99), claimed Section 29 in T.13S, R.21E and Section 42 in T.14S and R.21E in 1824. The property claimed was described as a nine arpent front tract of land in St. Charles Parish that measured 80 arpents in depth. The land was claimed by purchase, with Oneziphore producing a deed of sale which had been recorded in 1789 (Lowrie and Franklin 1834:596). This was undoubtedly the act of sale from Jacques Rixner to Paul Toups.

The claim suggests that Oneziphore acquired at least the upriver nine arpents front of his father's plantation at the latter's estate sale. Since in later years Oneziphore's plantation was described as being 25 arpents front on the river, it seems likely that he acquired all of his father's estate at the time of the probate sale, as well as additional land from Sylvain St. Amand (Figure 21). Because all of these individuals were related, it would not have been unusual for private acts of sale to have been executed. This would explain the apparent absence of public record on the transactions. However, the absence of land claims to Sections 65, 30, 31, and 32 in T.13S, R.21E, and Section 43 in T.14S, R.21E is perplexing. If Oneziphore owned these lands, why did he never lay official claim to them? In fact, these lands were not claimed until the second half of the nineteenth century (Figure 22).

Oneziphore St. Amand first appears in the 1820 census. He was living with his wife, Delphine Fortier (Cochran 1963:175), and son. Oneziphore St. Amand owned 56 male and 34 female slaves. A Free Man of Color was also resident at the plantation (Table 14).

By 1830, Oneziphore and Delphine St. Amand had two sons. Of the St. Amands' 118 slaves, seventy-seven were male and forty-one were female. Comparison of the 1820 and the 1830 census records indicate that an increase in the slave population was due both to purchase as well as natural increase. Fifteen female children had been born since the previous census, but all ten of the girls younger than 14 years of age in 1820 had been sold or had died by 1830. Seven male infants were born between 1820 and 1830, and at least 14 male slaves were purchased. Three Free Women of Color also lived on the plantation (Table 15).

The 1840 census indicated Oneziphore and his wife, Delphine Fortier, lived with one young free white male, who was probably one of their sons. The slave population was more comparable to that in the 1820 census than it was to that in the 1830 census. The decrease was at least in part attributable to the death of at least 10 males who were over the age of 55 in 1830. In addition, five Free Persons of Color lived on the plantation (Table 16).

No record was found of Oneziphore St. Amand and Delphine Fortier in the 1850 Federal Census. The couple apparently separated, since Delphine was described as the "estranged wife of Oneziphore St. Amand" in a conveyance to the Consolidated Association of Planters of Louisiana on February 12, 1850. However, the sugar reports indicate that as late as the 1849/1850 season, Oneziphore was managing the plantation (Table 17). That year, the St. Amands lost part of their crop to the flooding resulting from the Fortier crevasse. It was not unusual for married couples to separate their property when the family encountered financial difficulties. Usually at least the residence property was placed in the wife's name to protect it from the husband's creditors. This may have been the case with the St. Amands, although the use of the term "estranged" suggest that the couple in fact divorced. In either case, no record of a suit between the couple was located.

The estate was described in the sale to the Consolidated Association of Planters as a 25-arpent front plantation that was planted in sugar cane, corn, and broad beans and that included savannas and woods. Fifty-nine slaves (Table 18) were included in the sale. Mothers of individuals as old as 20 years were listed in the slave

Table 14. 1820 Census Data for Oneziphore St. Amand Family.

Number Free White Males	Age
1	under 10
1	26-45

Number Free White Females	Age
1	16-26

Number Male Slaves	Age
10	under 14
30	14-26
10	26-45
6	over 45

Number Female Slaves	Age
10	under 14
14	14-26
5	26-45
5	over 45

Free Male Persons of Color	Age
1	over 45

Table 15. 1830 Census Data for Oneziphore St. Amand Family.

Number Free White Males	Age
1	under 5
1	10-15
1	30-40

Number Free White Females	Age
1	30-40

Number Male Slaves	Age
7	under 10
10	10-24
15	24-36
30	36-55
15	55-100

Number Female Slaves	Age
15	under 10
10	24-36
16	36-55

Free Female Persons of Color	Age
2	36-55
1	55-100

Table 16. 1840 Census Data for Oneziphore St. Amand Family.

Number Free White Males	Age
1	20-30
1	40-50

Number Free White Females	Age
1	40-50

Number Male Slaves	Age
7	under 10
3	10-24
6	24-36
29	36-55
5	55-100

Number Female Slaves	Age
19	under 10
1	10-24
9	24-36
10	36-55
1	55-100

Free Male Persons of Color	Age
1	under 10
2	36-55

Free Female Persons of Color	Age
1	under 10
1	24-36

Table 17. Sugar and Rice Crops Produced at Louisa Plantation (Champomier 1850-1862; Bouchereau 1869-1817).

SEASON ENDED	OWNER/MANAGER	SUGAR IN HHDS	RICE BBLS
1850[1]	O. St. Amat and others	198	
1851[2]	Polk and Lanfear	63	
1852	Polk and Lanfear	198	
1853[3]	Polk and Lanfear	426	
1854	Polk and Lanfear	1000	
1855	Ambrose Lanfear	618	
1856	Ambrose Lanfear	620	
1857	Ambrose Lanfear	66	
1858	Ambrose Lanfear	193	
1859	Ambrose Lanfear	95	
1860	Ambrose Lanfear	152	
1861	Ambrose Lanfear	250	
1862	Ambrose Lanfear	300	
1869[4]	Freret Bros.	215	242
1870[5]	Freret Bros.	397	360
1871	Freret Bros.	155	
1872	Freret Bros.	75	
1873	Heirs A. Lanfear	81	
1874	Heirs A. Lanfear	55	
1875	Heirs A. Lanfear	134	585
1876	1st Central Diffusion Sugar Manufacturing Co.	300	1693
1877	Morris, Tasker and Co.	no yield	
1878	Morris, Tasker and Co.	no yield	
1879	Morris, Tasker and Co.	250	
1880	Morris, Tasker and Co.	300	

---

[1] Crop partly lost to overflow (from Fortier Crevasse)

[2] Steam -powered mill

[3] Vacuum pan apparatus for processing

[4] Brick sugar house with a shingle roof

[5] Listed as a refinery

Table 17, continued.

SEASON ENDED	OWNER/MANAGER	SUGAR IN HHDS	RICE BBLS
1881[6]	Morris, Tasker and Co.	260	
1882	Morris, Tasker and Co.	no yield	
1883	Morris, Tasker and Co.	400	
1884	Morris, Tasker and Co.	107	150,000
1885	Louis Le Bourgeois	no yield	
1886	Charles Le Bourgeois		5,280
1887	Charles Le Bourgeois		4,400
1888	Charles Le Bourgeois		2,410
1889	Charles Le Bourgeois		2,750
1890	John E. Louque		no yield
1897	Chas. Le Bourgeois		
1898	Chas. Le Bourgeois		
1899	Chas, Le Bourgeois		
1900	Chas. Le Bourgeois		
1901	Chas. Le Bourgeois		
1902	Chas. Le Bourgeois		
1903	Levert and Crozier		
1904	H.S. Crozier		
1905	H.S. Crozier		
1906	H.S. Crozier		
1907	H.S. Crozier		
1908	Harang and Crozier		
1912	Harang and Crozier		
1913	Harang and Crozier		
1914	Harang and Crozier		
1915	Harang and Crozier		
1916	Harang and Crozier		
1917	Harang and Crozier		

[6] Rillieux apparatus for processing

Table 18. Inventory of Slaves Sold to the Consolidated Association of Planters by Delphine Fortier St. Amand, 1850 (A. Ducatel, 12 February 1850, NONA)

Name	Age	Sex	Occupation/Other Comments
Noel	60	M	field hand
Osis	45	M	carter and ploughman
Azose	70	M	field hand
John	46	M	carter and ploughman
Jean-Pierre	50	M	field hand
Richard	65	M	field hand and caulker
Jean-Baptiste	45	M	carter and cooper?
Isaac	42	M	carter and engineer
Jean	60	M	carter and ploughman
Colas	43	M	field hand
Jean-Louis	65	M	field hand
Honore	55	M	field hand
Zephirin	31	M	carter and ploughman
Barnabe	65	M	sugar maker and cooper?
Pierre	50	M	field hand
Baton-rouge	65	M	commander
Harry	46	M	carter and ploughman
Henry	48	M	carter and blacksmith
Apollon	65	M	blacksmith and engineer
Remy	60	M	field hand (considered violent)
Andre	65	M	field hand
Julien	65	M	cowherd
Albert	45	M	field hand
Hilaire	70	M	field hand
Cocotte	60	F	cook
Keaty	48	F	cook and washerwoman
Mary	46	F	field hand
Jules	11	M	son of Mary
Therese	9	F	daughter of Mary
Emma	1	F	daughter of Mary
Mille	46	F	field hand
Jenny	41	F	domestic servant, baker, field hand
Bazile	17	M	son of Jenny
Emerante	11	M	son of Jenny
Pierre	10	M	son of Jenny
Octavie	2	?	child of Jenny

Table 18, continued.

Name	Age	Sex	Occupation/Other Comments
Cecile	20	F	daughter of Jenny
Charles	1 1/3	M	son of Cecile
Sophie	50	F	washerwoman and field hand
Laiza (grande)	46	F	domestic servant, baker, field hand
Baptiste	17	M	son of Laiza grande
Celestin	2	?	son of Laiza grande
Laiza (petite)	45	F	field hand
Lise	15	F	daughter of Laiza petite
Palmyre	25	F	domestic servant and field hand
Marie	3	F	daughter of Palmyre
Rose	42	F	field hand and nurse
Mathurin	19	M	son of Rose
Alzire	58	F	domestic servant, field hand, nurse
Melanie	60	F	domestic servant and field hand
Hyene	47	F	domestic servant and field hand
Babee	15	F	daughter of Hyene
Michel	13	M	son of Hyene
Antoinette	11	F	daughter of Hyene
Elizabeth	7	F	daughter of Hyene
Clarisse	2	F	daughter of Hyene
Louisa	7 months	F	daughter of Hyene
Ursin	14	M	orphan
Jean	45	M	workman, now a runaway, mulatto

inventory, indicating that the St. Amands acknowledged these relationships. Interestingly, although house servants were listed on the inventory, nearly all (the exceptions were the cook and a cook washerwoman, which were presumably full-time tasks) also functioned as field hands. This might be expected with a relatively small work force. Horses, cattle, tools, carts, and plowing equipment were also included in the sale (A. Ducatel, 12 February 1850, NONA). Of the 25 arpents of river frontage, nine had a depth of eighty arpents, and the remainder were 40 arpents deep. The Board of Directors of the Consolidated Association voted on September 24 to offer the plantation and its slaves at public auction on November 4, 1850 (A. Ducatel, 14 November 1850, NONA). However, the Board first enlarged the plantation by acquiring Sections 38, 39, and 40 in T.13S, R.21E from the Register of the Land Office at Baton Rouge on September 25th (COB C:242, SCP). These sections, which were backlands, had been previously unclaimed, as were Sections 65, 30, 31, and 32. This purchase added approximately 699 acres to the plantation, and provided the entire 25 arpents frontage with 80 arpents depth.

The auctioneer, Joseph Le Carpentier, described the property as a sugar plantation formerly belonging to O. St. Amand. It had 25 arpents of river frontage with a double concession. Of its 180 arpents of cane, 100 were in plants and 80 were in rattoons which would allow for a large crop the following season. The act of sale mentioned that only 52 slaves were being offered and that one had died before the sale (A. Ducatel, 14 November 1850, NONA; COB A:76, SCP). However, it seems likely that at least three of the slaves died since one was 70, one was 65, and one was a year-old infant which could not have been sold from her mother. Presumably, the other slaves absent from the second inventory were sold off before this public auction (Tables 18 and 19). Table 20 lists the 56 slaves owned by the Planters' Bank and who were residing on Louisa when the census taker visited the plantation on July 23, 1850 (1850 Federal Census).

Ambrose Lanfear was the highest bidder, purchasing the plantation for $76,000.00. A dwelling house, a sugar house with a steam engine, a purgery, stables, and slave cabins, plus horses, cattle and farming implements were all located on the plantation at the time of his purchase (COB A:76, SCP).

It is likely that Ambrose Lanfear gave the name "Louisa" to the plantation. There is no documentation that the plantation was called Louisa prior to Lanfear's ownership. Lanfear had a daughter called Louisa, and he may

Table 19. Slaves Included in Ambrose Lanfear's Purchase of Louisa Plantation, 14 November 1850 (COB A:76, SCP)

Name	Age	Sex	Occupation/Other Comments
Noel	60	M	field hand
Osis	45	M	carter
John	46	M	carter
Jean Pierre	50	M	field hand and caulker
Richard	65	M	field hand and caulker
Isaac	42	M	carter and engineer
Jean	60	M	carter
Colas	43	M	field hand
Harry	46	M	field hand
Jean Louis	55	M	field hand
Honore	55	M	field hand
Pierre	55	M	field hand
Remy	60	M	field hand
Andre	65	M	field hand
Albert	45	M	field hand
Hilaire	70	M	field hand
Barnabe	65	M	cooper and sugar maker
Baton Rouge	65	M	leader and headman
Henry	48	M	field hand and blacksmith
Julien	55	M	cow keeper
Cocotte	60	F	cook
Keaty	48	F	cook and washer woman
Mary	46	F	field hand
Julius	11	M	son of Mary
Therese	9	F	daughter of Mary
Jenny	41	F	field hand and baker
Basile	17	M	son of Jenny
Emerante	11	M	son of Jenny
Pierre	10	M	son of Jenny
Octavie	2	?	child of Jenny
-----	4 months	?	Jenny's infant
Cecile	20	F	daughter of Jenny
Charles	1 1/3	F	son of Cecile
Sophie	56	F	washer woman and field hand
Laiza	46	F	house servant, baker and field hand
Baptiste	17	M	son of Laiza
Celestine	2	?	child of Laiza

Table 19, continued.

Name	Age	Sex	Occupation/Other Comments
Laiza Petite	45	F	field hand
Lize	15	F	daughter of Laiza Petite
Rose	42	F	field hand and sick nurse
Matherin	19	M	son of Rose
-------	58	F?	servant, field hand and sick nurse
Melanie	60	F	house servant and field hand
Hyene	47	F	field hand
Babet	15	F	daughter of Hyene
Michel	13	M	son of Hyene
Antoinette	11	F	daughter of Hyene
Elizabeth	7	F	daughter of Hyene
Clarisse	2	F	daughter of Hyene
Laiza	7 months	F	daughter of Hyene
Ursin	14	M	orphan
Jean Mulatto	45	M	workman, now a runaway

Table 20. 1850 Census Data for Louisa Plantation.

Number of Slaves	Age	Sex
3	60	M
2	58	M
2	55	M
1	53	M
3	50	M
1	48	M
1	46	M
2	45	M
2	42	M
1	40	M
1	38	M
1	36	M
4	35	M
2	20	M
1	17	M
1	15	M
1	12	M
1	10	M
1	45	F
1	43	F
2	40	F
2	38	F
2	36	F
2	34	F
2	32	F
2	30	F
1	18	F
2	15	F
1	12	F
1	10	F
1	8	F
1	5	F
1	4	F
1	3	F
1	2	F
1	1	F

have named the plantation after her (Succession of Ambrose Lanfear, #33323, 2nd District Court, OP).

Ambrose Lanfear was not listed as a resident of St. Charles Parish in either the 1850 or 1860 censuses. In 1850, he lived in Orleans Parish. The 1860 census records an "Ambrose Lanford" residing in New Orleans. This is quite possibly a typographical error for "Ambrose Lanfear" (1850 and 1860 Federal Censuses). Nevertheless, J. W. Dorr, a correspondent for the New Orleans Crescent, described Lanfear in 1860 as one of the "solid men" of St. Charles Parish in terms of money, land, and slaves (Prichard 1938:1110,1112-1113). At that time, Lanfear had 101 slaves living at Louisa in thirty-two slave cabins (Table 21).

If Lanfear was an absentee landowner, his manager may have been a man named Polk, since "Polk and Lanfear" were listed as operating Louisa in the period between 1850 and 1854. Table 17 shows that their initial two crops were poor, but their yields improved dramatically after they introduced the use of a vacuum pan in the 1852/1853 season. In 1854, they produced a fantastic crop of 1000 hogsheads of sugar (Table 17). Crop yields declined at the end of the 1850s, although they experienced a slight recovery before the Civil War (Table 17).

Lanfear presumably suffered financially during the Civil War, because in 1866, he sold several tracts of land, including the sugar plantations of Ashton and Louisa, to William A. and George F. Freret for $158,333.33 1/2. Louisa was valued at $76,000. At this time, improvements on Louisa Plantation included a house with furniture, a sugar house with a steam engine, a purgery, stables, servants quarters, horses, cattle, mules, and agricultural implements (COB C:242, SCP). The sugar house was of brick construction and had a shingle roof (Bouchereau 1869).

The 1870 census listed a "George A. Freret" as the head of household at Louisa. He was a 24-year-old, white planter. Based on his young age and the fact that he is listed as "George A." and not "George F.", it is possible that he was the son or a young relative of either William A. or George F. Freret. Living with George A. Freret were his 21-year old wife, Alice; their two daughters, three-year-old Josephine and one-year-old Elmira; and a 40-year-old woman named Alice Hall (1870 Federal Census).

The Freret ownership of Louisa was short lived. Although their sugar crops in the period 1869 to 1870 were good and they even produced a moderate amount of rice in

Table 21. 1860 Census Data for Ambrose Lanfear's Slaves at Louisa.

Number of Slaves	Age	Sex	Ethnicity
3	60	M	Black
2	50	M	Black
7	40	M	Black
6	30	M	?
1	30	M	Mulatto
7	35	M	Black
7	27	M	Black
2	40	M	Mulatto
4	45	M	Black
1	40	M	Black
1	50	M	Mulatto
1	55	M	Mulatto
1	60	M	Mulatto
1	16	M	Black
1	12	M	Mulatto
3	11	M	Black
3	6	M	Black
2	5	M	Black
5	30	F	Black
4	50	F	Black
2	45	F	Black
4	35	F	Black
3	20	F	Black
7	25	F	Black
1	18	F	Black
1	40	F	Black
1	60	F	Black
1	70	F	Black
1	75	F	Black
3	12	F	Black
3	10	F	Black
2	6	F	Black
1	8	F	Black
2	5	F	Black
3	3	F	Black
2	2	F	Black
2	8/12	F	Black

these years, yields declined in the early 1870s (Table 17). It should be noted that Louisa's brick and shingle sugar house was listed as a refinery in the 1870 report (Bouchereau 1870; Table 17). While it is uncertain precisely what was meant by the term "refinery" (it may have simply indicated that they processed sugar for neighboring estates whose apparatuses were not functional), presumably it signified an investment in equipment. If the Frerets did in fact incur debt in order to establish a refinery, then the poor crops in the early 1870s were probably disastrous. This might explain why on May 4, 1872, the plantation was seized from the Frerets and sold at a sheriff's sale to Ogilvie Blair Graham of Belfast, Ireland, and Gordon Norrie of New York City. Both men were Lanfear's sons-in-law. Graham was married to Louisa Sarah and Norrie was the husband of Emily Francis Lanfear. Improvements on record at the time of the sale included a dwelling house, a sugar house, a mill engine, a purgery, stables, slave cabins, and other outbuildings. There were also 38 mules, two horses, two wagons with bodies, two wagons with tanks, one four-horse cart, five three-horse carts, one one-horse cart, 34 plows, six sets of doubletrees, one buggy and harness, 35 hoes, six shovels, and plow gear for 30 mules (COB D:310, SCP; Succession of Ambrose Lanfear, #33323, Second District Court, OP).

Graham and Norrie were no more successful than the Frerets. After three years of poor crops (Table 17), they sold the sugar plantation to Stephen P. M. Tasker on February 3, 1876 for $30,000.00. The buildings, mules, carts, farming equipment, and machinery at the plantation were included in the sale (COB E:138, SCP).

Tasker, who was from Philadelphia, Pennsylvania, was probably a partner in Morris, Tasker, and Company. No information on this company was found, although they apparently operated Louisa during their first year as the "First Central Diffusion Sugar Manufacturing Co." Morris, Tasker, and Co. was not listed in the New Orleans city directories in the late 1870s (The Daily Picayune, 9 March 1884).

Under Tasker's tenure, experiments with new technology for sugar extraction were conducted at Louisa Plantation. Attempts to increase the extraction of juice from the cane in the postbellum period led planters to try to replace the cane mill with the diffusion process. This process had been successfully utilized for European sugar beets since 1865. In the diffusion process, water was added to sliced beets to dissolve the sugar content of the vegetable. Louisiana planters felt diffusion could be successfully employed on

sugar cane. It was estimated that 100 pounds of cane processed by the diffusion method would yield 84 pounds of juice. Only 66 pounds of cane juice could be extracted by rollers. Experiments with diffusion succeeded at Belle Alliance Plantation under the management of E. and J. Kock in 1873. The cost of the equipment was $10,000. The diffusion apparatus was removed from Belle Alliance to Louisa in 1875. Although it operated successfully, it was used only intermittently at Louisa and then was sold in 1880. The process proved to be too expensive to be economically viable (Sitterson 1953:279-280). A Rilleux apparatus was installed in the sugar house after the diffusion apparatus was removed (Bouchereau 1881).

On December 8, 1883, J. C. LeBourgeois purchased Louisa from Tasker for $25,000.00. Included in the sale were the buildings; equipment, such as a draining machine complete with its boilers; various agricultural implements like carts and plows; 30 mules; and all the hay and feed in the barns. LeBourgeois agreed to insure the dwelling house, cabins, and other improvements on Louisa against loss or damage by fire. Excluded from the sale to J. C. LeBourgeois were the mill engine and its boilers, tanks, vacuum pans, and all the sugar manufacturing equipment located in the sugar house. In addition, a pump at the river bank and its pipe, a portable railway with its trucks and rolling stock and a portable engine at the river bank were excluded from the sale. Stephen P. M. Tasker had purchased these items from Ogilvie B. Graham and Gordon Norrie in conjunction with Louisa Plantation. Tasker now sold them to a Mr. Sarpy who agreed to remove them prior to August 31, 1884 (COB G:461, SCP). Given that there was a decrease in the selling price of the plantation between the time it was sold to the Freret brothers and the time Graham and Norrie sold it to Tasker, it seems unlikely that Graham and Norrie installed this equipment on the plantation. Thus, it was probably purchased by the Frerets or by the St. Amands.

The fact that the sugar processing equipment was sold separately from the plantation suggests that LeBourgeois was not interested in growing cane. In fact, the sugar house is not mentioned after 1885 in the sugar and rice reports, and only rice is reported in the years between 1885 and 1888 (Table 17, Bouchereau 1885-1888). Rice cultivation undoubtedly was the response to the Davis Crevasse. As discussed in detail above, the Davis Levee broke on March 8, 1884. Louisa and other neighboring plantations were flooded out and sustained great property loss (The Daily Picayune, 9 March 1884).

In 1888, J. C. LeBourgeois leased fifty-four arpents of Louisa Plantation to A. Robert, Jr. to grow a rice crop. He also allowed Robert and his other tenants the use of the pump engine and boiler for the 1888 pumping season at the rate of one dollar per arpent of leased or cultivated land (COB H:696, SCP). The following year, John Louque is listed as the manager of Louisa in the sugar and rice report (Table 17). As noted above, this was about the time Louque appears as the manager of Davis Plantation. After this date, however, Louisa is not listed again until the 1896/1897 season, with Charles LeBourgeois again managing the plantation.

The wife of J. C. LeBourgeois, Lucretia Blow, died sometime after the turn of the century and her interest in the plantation was divided between J. C. and her three living children on April 16, 1904. That same day, they sold Louisa Plantation to John B. Levert and Aimee Ernestine Danjean (Mrs. Henry S. Crozier). Each acquired a half interest (COB M:598, SCP). As suggested above, sugar agriculture may have been reintroduced at Louisa and Davis Plantations under Levert's ownership, although the sugar and rice report provide no statistics for either plantation during this period. Mrs. Crozier sold one half of her half interest in Louisa and Davis Plantations to Augustus Hirsch of Chicago the following December (COB N:80, SCP). Crozier and Hirsch exchanged their quarter interests in Davis Plantation for John B. Levert's half interest in Louisa and also paid Levert $3000.00 cash on November 23, 1905. At this time, Louisa was comprised of 1492-1/2 acres and had thirty-one mules, four oxen, two cows, four horses, three carts, four wagons and two buggies attached to the property (Lyle Saxon, 23 November 1905, NONA). On January 13, 1911, Hirsch sold his interest in Louisa Plantation to Dominique Harang (COB P:165, SCP). J. H. Harberts of Golden, Illinois purchased Harang's and Crozier's interests in the property on March 6, 1913 (COB R:52, SCP).

During these early years of the twentieth century, the various owners of Louisa leased portions of the plantation for agricultural purposes. Aimee Ernestine Danjean Crozier leased 713 acres for $[illegible]00 to Keller Brothers and Barkley in October 1908 for the [illegible]tivation of rice, corn or other agricultural products. The lease included the cleared portions of Louisa except for "the lots around the cabins and the large house, commonly designated as the plantation quarters" (COB O:216, SCP). Another 150 arpents was leased to Etienne Trosclair in 1910 for the cultivation of corn and sugar cane (COB Q:374, SCP). J. H. Harberts leased various sections of Louisa for truck farming (COB S:441, SCP), the cultivation of rice (COB U:550, SCP) and other produce. In

these transactions, references were made to such buildings and structures as an "overseers house . . . in the rear of the Gabb house, . . . [a] large plantation barn . . . [a] corn crib" (COB S:443, SCP), "a stable" (COB S:441, SCP) and Dr. Guillette's house plus a house constructed circa 1918 (COB T:520, SCP). As seen in Figures 26 and 27, the quarters complex at Louisa stood at least until the 1920s.

Louisa Plantation was acquired by Frank J. Penick of Quincy, Illinois from J. H. Harberts on March 30, 1917. The property description in the deed is very vague as it does not even refer to any sections, townships or ranges. Neither are any subdivisions mentioned, but certain parcels of the tract had been subdivided off by June 20, 1922 (COB T:66 and COB W:42, SCP). Penick sold the plantation to the Olympia Realty Company of New Orleans on December 21, 1926 (COB Z:276, SCP). In 1938, Bert W. Clarke, the sheriff of St. Charles Parish, seized Louisa Plantation from this realty company and ultimately bought it himself on March 12, 1938 (COB MM:25, SCP).

In May, 1940, Mark A. Penick of Quincy, Illinois purchased the portions of Louisa Plantation owned by Bert Clarke and also an acre of land owned by Harry Post that included "an old overseer's house . . .of Louisa Plantation" (COB QQ:99, 101, SCP). Penick permitted A. B. House to explore for and extract the oil, gas and minerals on those portions of Louisa that Penick owned (COB MMM:413, SCP).

Penick died on September 13, 1952, leaving Louisa Plantation to his widow, Gertrude Tenk Penick, and his daughter, Marcia Ann Penick Schornstein (COB 5:13 and COB 15:433, SCP). The two women sold Louisa Plantation to the Farmers Export Company of Kansas City, Missouri on January 4, 1967 (COB 63:10, SCP). Eighteen years later, on December 3, 1985, Farmers Export sold the plantation to Archer Daniels Midland Company, a Delaware corporation (COB 348:235, SCP).

Predictions Concerning Historic Site Location

Examination of the Mississippi River Commission maps from the late-nineteenth century and early-twentieth century (Figures 26 and 27) permitted high-probability areas for historic sites to be identified (Chapter 1). Insofar as Louisa Plantation is concerned, the quarters and industrial complexes, and probably the residential complex, were located outside of the study area within Section 30 of T.13S, R.21E (Figures 26 and 27). It is likely that the residential, industrial, and quarters complexes on Louisa were located in this area from the time that the plantation

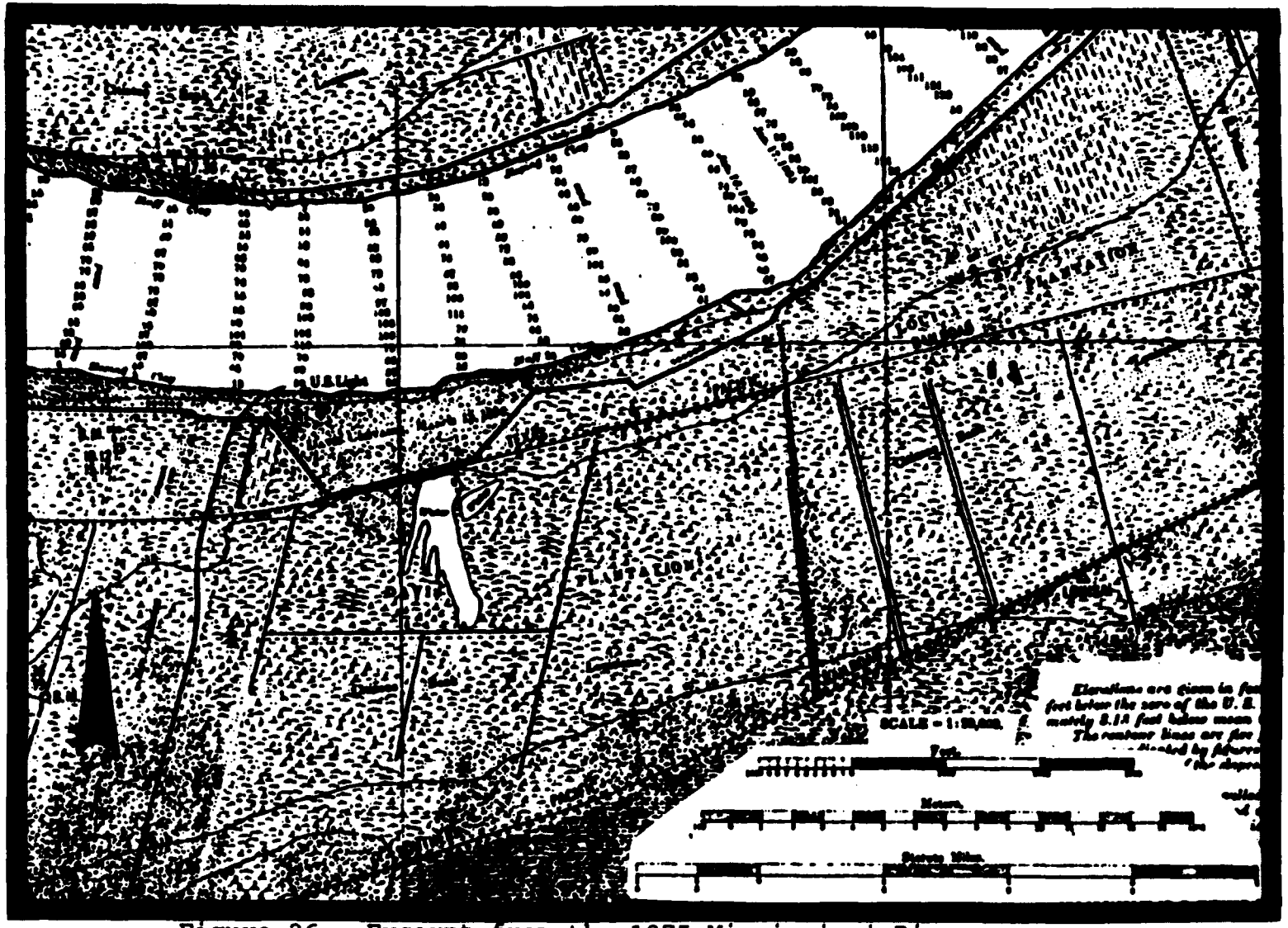


Figure 26. Excerpt from the 1875 Mississippi River Commission, Chart 75 (drafted in 1894), showing improvements on Davis and Louisa Plantations.

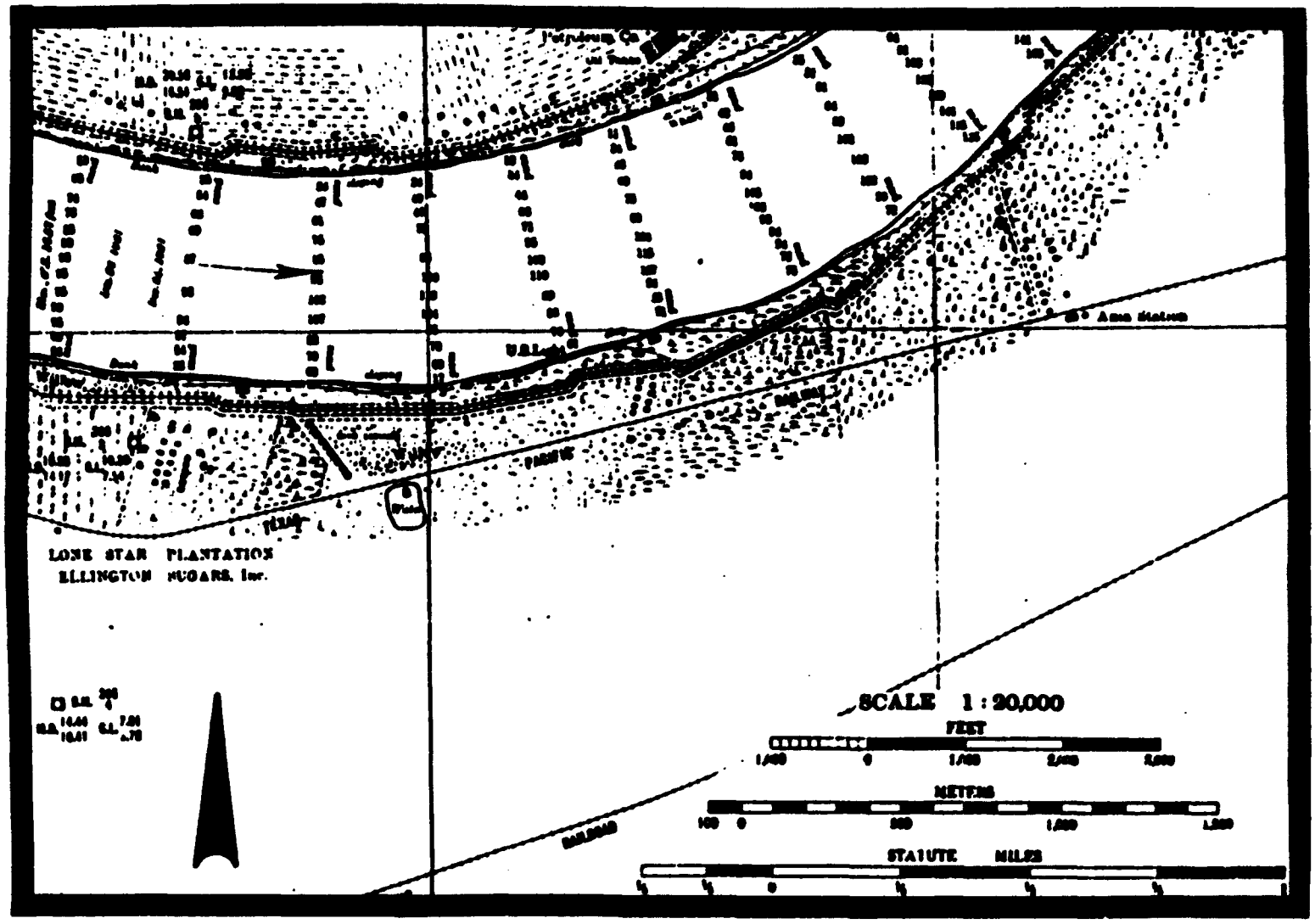


Figure 27. Excerpt from the 1921 Mississippi River Commission, Chart 75, showing improvements on Davis and Louisa Plantations.

was consolidated in the late-eighteenth/early-nineteenth century.

The locations of the antebellum activity areas on Davis Plantation are problematic. By the time the 1875 series Mississippi River Commission Map was drafted in the 1890s, improvements to the plantation had been destroyed by the Davis Crevasse (Figure 26). However, a few structures are shown upriver from the crevasse. These probably were the residences of tenants such as Henry Beruaby, who leased land for rice cultivation. Remains of these structures might be expected on the batture within the study area (Area 1, Figure 2), although they may have been destroyed by road and levee construction.

In addition, a residence within a fenced yard is shown as being located in the extreme downriver portion of Section 28 of T.13S, R.21E in the 1890s (Figure 26). This may have been the residence for the owner, or, more likely, the manager of Davis Plantation. Given the location of this residence in the extreme downriver corner of the plantation, it is unlikely that use of this area predates the Davis Crevasse. The site of this structure would be located on the present-day batture within Area 1 on Figure 2, and the yard would extend into Area 2A.

By 1921, what appears to be an organized quarters complex is once again present at Davis (Figure 27). Also, structures are still shown adjacent to the railway at this date. Remains of the quarters, if not destroyed by road and levee construction, might be expected in the uprivermost portion of Area 1 on Figure 2.

CHAPTER 7
SUMMARY OF RESULTS OF PREVIOUS ARCHEOLOGICAL INVESTIGATIONS OF PREHISTORIC SITES IN THE BARATARIA BASIN

Introduction

This chapter summarizes the results and conclusions presented by previous workers in the Barataria Basin. Most of the work that has been done consists of survey level investigations. Few sites have been the locus of excavation of even a 1 x 1 m unit or its equivalent. As a result, surface collections of ceramics represent the primary data base for the region. This fact is regrettable because of the rapid loss of sites due to subsidence, erosion, and development.

1979 Survey and Overview by Coastal Environments, Inc.

Coastal Environments, Inc. (CEI), conducted an intensive archeological survey of the bankline and designated dredge disposal areas along portions of Bayou Segnette, Bayou Barataria, and Bayou Rigaud waterways (Gagliano et al. 1979:1/1). Survey crews in small boats inspected banklines and dredge spoil. Pedestrian survey was conducted "when possible," primarily in the vicinity of the communities of Barataria and Lafitte. Oral informant data helped to locate some sites (Gagliano et al. 1979:1/6-1/8).

Sites were mapped using a variety of techniques. Many bankline sites were divided into 10 m segments, and systematic surface collections were made within each segment. With the exception of Bayou Cutler I (16JE3), surface proveniences provided no evidence of temporal differences. The only excavation was at 16JE3 where an eroding secondary or bundle burial was removed from the bankline and two test pits were excavated. Undisturbed soil cores were obtained using hand augers at five sites. The cores were sealed and stored for future analysis (Gagliano et al. 1979:1/9-1/12,1/14).

In the report of this survey, data obtained by earlier workers, including Kniffen (1936) and McIntire (1958), were incorporated. The study resulted in an overview of prehistoric occupations within the Des Allemands-Barataria Basin. This overview was presented as a culture history which is summarized in the following sections.

Tchula - Early Marksville Interval (500 B.C. - A.D. 200). Tchula period ceramics represent the earliest cultural materials collected within Barataria Basin. These are associated with the Tchefuncte culture. Sufficient

sherds have not been obtained to allow an assessment of whether such occupations in the area warrant a separate phase designation (Gagliano et al. 1979:4/2-4/3).

At the time of this study, only two sites (16JE37 and 16JE3) had yielded Marksville ceramics "...in any quantity." Sufficient data were not available to refer early Marksville components to a particular phase. Most reported sites yielding ceramics from this time were located at the intersection of the des Familles-Barataria trunk channel and a distributary (16JE37 and its environs). The distributaries probably led to small crevasse or sub-delta lobes, thereby providing access to resources in nearby marshes and bays (Gagliano et al. 1979:4/4, 4/19). Subsequent to this report, excavations were conducted by the National Park Service at 16JE37 (below).

Late Marksville - Baytown Interval (A.D. 200-700). Although insufficient data were available to refer Late Marksville occupations to a specific phase, it was considered likely that markers would be similar to the Magnolia phase used to characterize sites associated with the St. Bernard Delta Complex. "...Numerous sites in the survey area were occupied during this time interval... [and] Archeological sites with initial occupations during this time were quite common..." (Gagliano et al. 1979:4/22). Nevertheless, sufficient work had not been done to allow characterization of a Baytown period phase for the Barataria Basin (Gagliano et al. 1979:4/19-4/20).

Coles Creek Interval (A.D. 700-1000). Early Coles Creek sites within the Barataria Basin were assigned to the Bayou Cutler phase which is named for the Bayou Cutler I site (16JE3). At the time of CEI's study, later Coles Creek sites had been assigned to the Bayou Ramos phase. However, it was considered likely that additional data would require formulation of a separate phase for the area. Numerous sites which yielded evidence of an occupation during the Coles Creek interval were recorded (Gagliano et al. 1979:4/27-4/30, 4/33).

Mississippi Interval (A.D. 1000-1700). Early Mississippi period occupations within the Barataria Basin are assigned to the Barataria phase which is the equivalent of the Medora phase for sites located further up the Mississippi River and in the approximate vicinity of Baton Rouge. Late Mississippi period sites represent either the Bayou Petre or Delta-Natchezan phase. Some sites yielded markers for both of these phases, and it was considered likely that the Barataria Basin represents an area of geographic overlap for the two phases. The large number of

sites representing the Mississippi Interval was taken as evidence that environmental conditions were nearly optimal for human occupation. Early Mississippi period sites yielded sherds suggesting influence from or contact with the Florida Gulf Coast, while Late Mississippi sites yield ceramics suggesting influence from further up the alluvial valley (Gagliano et al. 1979:4/41-4/42, 4/44, 4/55).

The Grand Bayou Survey

Tulane University conducted a twenty percent sample of a ten square mile area along Grand Bayou south of Boutte, to the west of the Davis Pond study area. The bayou was a distributary of the Mississippi River, and it runs to Bayou des Allemands (Davis et al. 1982:25-26). A radiocarbon sample from peat at the base of the Grand Bayou natural levee actually yielded a date of ca. 2500 BP which indicates that its development is approximately contemporaneous with that of the Bayou Verret distributary system (Britsch and Dunbar 1990:35-37, Chapter 2 of this report).

Five prehistoric sites were recorded as a result of this survey. These are 16SC42, 16SC43, 16SC44, 16SC45, and 16SC46. Most of the decorated ceramics suggest occupations at the sites during either the late Marksville, Baytown, or early Coles Creek Period. If each of the sites represents only a single occupation, they are best attributed to the Baytown Period (Davis et al. 1982:79-88). However, one site (16SC45) also yielded evidence of a limited Mississippi period occupation (Davis et al. 1982:78).

16SC42 consists of a series of small *Rangia* middens along both sides of Grand Bayou. Total extent of the site is approximately 2284 sq m. A 1 x 1 m unit on the east side of the bayou yielded ceramics, shell, and faunal remains at depths of 3 to 10 cm below surface. A 1 x 1 m unit on the west side of the bayou yielded artifacts at depths of 0 to 25 cm below surface. Ceramic types, including Churupa Punctated and sherds "virtually identical to the Steele Bayou variety of Marksville Incised," indicated a terminal Marksville or Baytown period occupation. The site was interpreted as a locale representing an occupation of brief duration (Davis et al. 1982:78-80).

16SC43 consists of two *Rangia* middens located on a natural levee of a relict channel of Grand Bayou. The middens measured 100 x 30 m and 25 x 18 m, and are approximately 120 m apart. A x 1 m unit in the western midden yielded ceramics to a depth of 39 cm below surface. Dense shell was encountered at 21 to 39 cm. A 1 x 1 m unit in the eastern midden yielded artifacts to a depth of only

17 cm. Ceramics indicated an occupation sometime in the Late Marksville to early Coles Creek period (Davis et al. 1982:81-83).

16SC44 was disturbed, and site extent was difficult to determine. A 1 x 1 m unit yielded sherds at depths of 14 to 20 cm below surface. Of 25 sherds, only one was decorated. Paste and temper of the plain sherds are similar to those observed at 16SC42 and 16SC43 (Davis et al. 1982:83-85).

16SC45 represents the largest site recorded during the survey. It is located on two ridges associated with the same relict channel as 16SC44. The ridges were interpreted as "shoal deposits" marking a former mouth of Grand Bayou. The site map suggests that the site is located between two relict channels which appear to represent branches of a parent stream. Shell on part of the site was being commercially exploited. Artifacts and *Rangia* were recovered from depths to 1.1 m below surface. Some strata represented densely compacted shell midden. Most of the sherds suggested a Baytown period occupation. However, a few sherds recovered from the surface and at shallow depths suggest a brief Mississippi Period occupation. The latter included L'eau Noire Incised, *var. Australia*; Buras Incised; and undecorated shell-tempered sherds (Davis et al. 1982:85-87).

16SC46 is a 30 x 20 m site adjacent to Grand Bayou. Cultural material was recovered from a 1 x 1 m unit to a depth of 23 cm below surface. The single decorated sherd of Alligator Incised suggested a Baytown period occupation (Davis et al 1982:88). Although all of the sites recorded were described as "aboriginal shell midden sites" (Davis et al. 1982:78), the discussion of 16SC46 states that "The absence of both shell and other faunal remains at 16SC46 is unusual..." suggesting that *Rangia* may have been absent at the site (Davis et al. 1982:88).

The Sims Site (16SC2)

The Sims Site is a multi-mound site first reported by Frank Fordey in 1952 (Weinstein et al. 1977:23). It covers approximately 32 acres on both banks of a now-abandoned crevasse-distributary named Bayou Saut D'ours, approximately six miles south of the Mississippi River. Coles Creek and Early Mississippi Period components are stratigraphically superimposed here, and a terminal Mississippi period component is horizontally separate from these. Three of the five original mounds are still extant at the site (Davis 1981:60; Davis and Giardino 1980:54). Although Tulane

University conducted fairly extensive excavations at 16SC2 in the 1970s, these have not been thoroughly reported.

Carbon and thermoluminescence (TL) dates have been obtained for the various components. The C-14 date for the terminal Mississippi component is 210 ± 65 B.P. (A.D. 1740) and the TL date is ca. A.D. 1810. The TL date associated with the early Mississippian midden is ca. A.D. 1088, while a hearth associated with Mississippian ceramics at the base of one of the mounds provided a C-14 date of 490 ± 180 B.P. (A.D. 1460). Finally, a TL date of ca. A.D. 812 was obtained for the Coles Creek midden (Davis 1981:61).

Davis (1981) briefly compared ceramic types and frequencies at Sims to those obtained at other sites in the Delta Region. Following Quimby (1951, 1957), he differentiated between "Plaquemine" and "Mississippian" occupations. Based on ceramic frequencies, no "Plaquemine" occupation was discerned at Sims, although the "lower Mississippian levels" were similar to Plaquemine components at other sites (Davis 1981:64-65).

Survey within the Core Area of Jean Lafitte National Historical Park

In 1981, the University of New Orleans (UNO) conducted a pedestrian archeological survey of the natural levees associated with Bayous Coquille and des Familles. In addition, a boat survey was conducted along portions of the shoreline of Lake Salvador and along portions of Bayou Barataria. Surface collections were made or attempted at all sites, and at least one shovel test was excavated on most sites. Test excavations were conducted at eight selected sites (Beavers et al. 1982:72-73).

Although no Tchefuncte ceramics were recovered, their presence at other sites in the Barataria Basin was noted. Sites within the survey area dated from the Marksville through the Mississippi Period. The presence of local centers of activity was noted for the Marksville (16JE37) and Mississippi (16JE36) Periods within this eastern portion of the Barataria Basin. Both of these are mound sites (Beavers et al. 1982:128-129,109-111).

Survey of 65 Acres Adjacent to Bayou des Familles

In 1990, Earth Search, Inc., reported on results of intensive archeological survey of 65 acres of natural levee associated with Bayou des Familles. Five new sites were recorded, and two previously reported sites were re-examined. Ceramic analysis indicated that all of the sites

appeared to represent Late Mississippi Period, possibly protohistoric occupations. The sites were small scatters of *Rangia* with very few ceramics present, and appear to represent only brief episodes of activity (Franks et al. 1990).

The Golden Ranch Surveys

In 1987, Coastal Environments, Inc., conducted cultural resources investigations of approximately 4620 acres and 25 linear miles of bank and shorelines. A total of 145 sites were examined within the survey area. 137 of were previously unrecorded (Hunter et al. 1988; Pearson et al. 1989).

The survey area represents a crevasse system off Bayou Lafourche. The system has four major branches, of which three were surveyed. Frazier (1967) thought the system developed during the past 400 years. However, archeological sites dating from ca. A.D. 700 were recorded, indicating that natural levees had formed by that time. Also, most sites had surface or near-surface manifestations indicating that very little deposition occurred after prehistoric occupation began (Pearson et al. 1989:4,8-10).

Aboriginal sites were associated with *Rangia* shell in the survey area. However, ceramics were recovered at some sites in areas where shell was absent. These sites were adjacent to shell scatters. Artifact density in these plowed areas without shell was light, and probably few if any sherds would be recovered by systematic shovel tests. Nevertheless, these represent areas of aboriginal activity. They are evidence that site size is generally underestimated when the presence of *Rangia* is the only criterion used to define site limits (Hunter et al. 1988:169,172).

Late Baytown/Early Coles Creek. The earliest prehistoric sites recorded during the survey were attributed to the Late Baytown or early Coles Creek Period (ca. A.D. 600-800). This determination is based on the presence of ceramic types such as French Fork Incised, *vars. Brashear* and *unspecified*; Coles Creek Incised, *var. Coles Creek*, *Stoner*, and *Hunt*; Baytown Plain, *var. Little River*; and Pontchartrain Check Stamped, *var. Pontchartrain*. The French Fork Incised varieties are associated with the late Baytown period, while the remaining types are generally associated with early Coles Creek occupations. A total of five Late Baytown/Early Coles Creek sites were recorded. Two are located on distal portions of the crevasse system and may actually represent later occupations. The three others are located on more proximal portions of the crevasse system and

indicate that occupation of the upper end of the system began by 1200 or 1300 BP. These three sites are located on the east side of the crevasse system, in the area closest to Lake Salvador. Channels probably provided access to the lake and its associated *Rangia* beds at the time of site occupation. None of the sites continued to be occupied in the later portions of the Coles Creek period, suggesting that the bayous allowing access to the lake had been infilled (Pearson et al. 1989:174-176).

Coles Creek Period. The Coles Creek period (ca. A.D. 700-1200), as used by the authors, includes both Late Coles Creek and early Plaquemine cultures. Ceramics considered indicative of Coles Creek occupations include Mazique Incised, *var. Sweetbay;* French Fork Incised, *var. Brashear;* Pontchartrain Check Stamped, *var. Pacaniere;* and Evansville Punctated, *var. Rhinehart.* Late Coles Creek/Plaquemine ceramics include Mazique Incised, *var. Manchac;* Coles Creek Incised, *var. Hardy;* and Harrison Bayou Incised. Addis Plain, *var. Addis,* makes its initial appearance within the Plaquemine tradition (Pearson et al. 1989:176).

During the Coles Creek period (ca. A.D. 700-1200), "...settlement seems to have spread over all or most of the natural levees of Golden Ranch..." (Pearson et al. 1989:176). Twenty-eight sites dating from the Coles Creek Period were recorded. Most of these sites are small *Rangia* scatters, some of which are only a few meters across. The only larger Coles Creek sites also had later occupations so that it is difficult to determine how much of the site derived from the Coles Creek period. The most unusual site attributed to this period consisted of a man-made ridge containing burials. The relatively large number of Coles Creek sites was taken as evidence for expanded settlement, presumably reflecting a population increase. Many of the sites are located at the juncture of a principal bayou with smaller distributary streams. These smaller streams would have allowed canoe access to areas with abundant *Rangia.* Site location seems to be strongly related to the accessibility of brackish-water marshes (Pearson et al. 1989:176-177).

Large *Rangia* deposits were present near the eastern (distal) extremity of Bayou Matherne. Few ceramics were recovered from these sites so that assignment to a particular prehistoric period is not possible. However, one such site on the banks of Catahoula Bay yielded Coles Creek ceramics. Sites of this nature with large amounts of shell but little pottery suggest extraction and processing locales from which *Rangia* meat may have been transported to upstream habitation locales (Pearson et al. 1989:177).

Mississippi Period. Twenty-one sites recorded during the survey are attributed to the Bayou Petre phase which represents the early part of the Mississippi Period in coastal south Louisiana. This phase is thought to be characterized by influence from the Mobile Bay/Pensacola area and from the Yazoo River area. Diagnostic ceramics for this phase were Pensacola Incised, D'Olive Incised, and Moundville Incised. These three types are part of an eastern Pensacola complex. Ceramic types that are typical of other portions of the Lower Mississippi Valley and that also appear at Bayou Petre sites include Owens Punctated, Cracker Road Incised, Mississippi Plain, and Bell Plain. Local types are Buras Incised, *var. Buras*, and Mississippi Plain, *var. Pomme d'Or*. During this period, occupants of the natural levee may have engaged in maize agriculture although no evidence for this was recovered. Collection of shellfish and fishing/hunting continued to be important subsistence activities. The environment in the Golden Ranch area would have allowed moderate-sized villages, and some of these may have been occupied year-round. Bayou Petre phase sites were distributed throughout the study area but were concentrated along one portion of Bayou Matherne. It was during this period that the Temple Mound site (16LF4) probably became an important center of activity (Pearson et al. 1989:178-179).

During the survey, twenty-six sites were reported to date from the later portion of the Mississippi Period which, in southern Louisiana, is represented by the Delta-Natchezan phase. Sites in the study area dating from this time are concentrated along portions of Bayou Matherne. Their location would have allowed easy access to Lake Salvador (Pearson et al. 1989:179-180).

Ceramics indicative of the Delta-Natchezan phase include Addis Plain, *vars. St. Catherine, Greenville*, and *Addis*; Fatherland Incised, *vars. Fatherland* and *Bayou Goula*; Maddox Engraved, *var. Emerald*; Leland Incised; Anna Incised; Chicot Red, *var. Grand Village*; Mazique Incised, *var. Manchac*; Mound Place Incised; Winterville Incised, *var. Belzoni*; Mississippi Plain; and Bell Plain. The Bayou Matherne Site (16LF3) has yielded two effigy vessels which are extremely unusual in southeast Louisiana (Pearson et al. 1989:182).

The survey identified six sites dating from the contact period. These were clustered at 16LF3. Ceramic types that co-occur with European wares and are thus clearly indicative of contact period sites include Maddox Engraved, Anna

Incised, and Chicot Red. They are thought to represent Ouacha and Chaouacha wares (Pearson et al. 1989:182).

The Coquilles Site (16JE37)

Ceramic sherds recovered during the National Park Service's 1984 excavations of the Coquilles site (16JE37) were analyzed by Giardino (1984). Ceramic assemblages from the upper and lower levels of the 1984 excavations exhibit differences in the ratio of decorated to plain ceramics and the ratio of stamped to incised designs. From the upper levels, only 9% to 19% of the pottery was decorated, while 30% of the pottery from lower levels was decorated. Also, upper levels show a higher number of incised designs while lower levels contain more stamped designs. Filmed and slipped pottery occurs as a minority ware only in the upper levels (Giardino 1984:46-47). These differences parallel those recorded by Beavers (1982:23-25) for earlier excavations at the same site. The differences in ceramic types and frequencies, in combination with a series of carbon dates, suggest a Marksville and a Baytown Period occupation at the Coquilles site (Giardino 1984:55, n.d.).

Carbon dates indicate that the upper component assemblage should be attributed to the Baytown Period. In contrast, a radiocarbon date of A.D. 115 was obtained at the base of the mound at Coquilles. Other dates from this provenience cluster around A.D. 200. All of these dates are indicative of a Marksville Period occupation. Excavation of a house floor within the village portion of the Coquilles site yielded carbon dates of A.D. 280-320, consistent with a Late Marksville Period occupation. (Giardino n.d.:13-17).

The structure that yielded carbon dates of A.D. 280-320 was circular, with timbers averaging six to eight centimeters in diameter. Large quantities of daub are evidence of construction materials. A hall-like entrance was oriented towards the southwest. Two infant burials were found almost directly below the wall. This structure represents the only Marksville period house excavated in southeastern Louisiana, a fact which greatly increases the site's significance (Giardino n.d.:15-17).

A second circular house structure at Coquilles was carbon dated to A.D. 410-450, thereby placing it within the Baytown Period occupation. It is similar to the Marksville period house discussed above, but one major difference has been noted. The Baytown house was constructed with poles of which the average diameter is six to ten centimeters greater than was the case for the earlier house. Daub, however, was used in the construction of both (Giardino n.d.:24-25).

Recovery of houses from both Marksville and Baytown periods, the distribution of sites nearby, and carbon dates ranging from about A.D. 200 to A.D. 570, suggest that a stable village-type occupation was located at the confluence of Bayous des Familles and Coquilles for about 400 years. Although some changes in proportions of ceramic types have been noted, there is continuity between the two assemblages. This continuity appears to reflect long-term and possibly continuous occupation of the site. An apparent continuity in the ceramic assemblage suggests that at least within the Barataria Basin, late Marksville culture merges into the subsequent Baytown period with few noticeable changes in the archeological record. Similar difficulty in distinguishing between Late Marksville and Early Baytown occupations has been encountered in other parts of the Lower Mississippi Valley (Phillips 1970).

The Fleming-Berthoud Site (16JE36)

Site 16JE36 is located about four miles south of Crown Point within the Barataria Basin. The site is presently used as a cemetery, and such use may date to the early period of Euro-American occupation. Excavations were conducted there by members of the Louisiana Archeological Society in the 1970s. Unfortunately, the work at this important site was summarized in only a cursory fashion by Holley and DeMarcay (n.d.). At times, record-keeping for the excavations was inadequate and problems of interpretation resulted (Holley and DeMarcay n.d.:1).

The site consists of a 22-foot high, conical shell mound with an encircling shell midden to the south and southeast. It is adjacent to Bayou Barataria. Midden extends north and east of the mound for approximately 100 m. A nearby plantation structure is situated on a possible prehistoric mound. The base of the shell mound is approximately 100 ft in diameter (Holley and DeMarcay n.d.:1,4,7).

A total of 5,705 undecorated sherds were recovered here, of which 16% were shell tempered. About 400 decorated sherds were recovered representing a variety of types attributed to either the Coles Creek or Mississippi period. In addition, charred corn cobs were recovered (Holley and DeMarcay n.d.:14-20,25-27).

The Pump Canal Site (16SC27)

Excavations by the Louisiana Archeological Society at the Pump Canal Site (16SC27) yielded evidence for

occupations from the Baytown through the Mississippi Period. Results of the excavations and artifact analyses are discussed in Chapter 10 of this report. That discussion precedes a series of chapters recounting results of excavations and artifact analyses undertaken at the site as part of the effort reported in this volume.

CHAPTER 8
ARCHEOLOGICAL SURVEY OF THE PROPOSED CONSTRUCTION CORRIDOR

Introduction

Figures 2 through 5 depict the areas that were targeted for intensive archeological survey. They were selected because construction of the freshwater diversion structure and associated levees could impact cultural resources in those areas. The various areas are discussed briefly in Chapter 1 of this report. Field conditions in some of the areas, particularly levels of standing water, required frequent modification of the plan for survey. The areas where intensive survey was actually accomplished are shown in Figures 6 through 9. Some areas which were shown in Figures 2 through 5 could not be surveyed because they were perpetually inundated. Survey was conducted within some areas not shown on Figures 2 through 5. These areas are shown on Figures 6 through 9. They were added to the survey area because they were accessible on foot and because more data were desired concerning the apparent lack of sites in the Davis Pond project area.

Chapter 1 included an assessment of the probability of site occurrences in each of the areas. Where the probability for sites was considered low, shovel tests were excavated only at 50 m intervals. In high probability areas, the shovel test interval was reduced to 20 m. In both types of areas, transect width was a consistent 20 m. All of the soil from the shovel tests was screened through 1/4-inch mesh.

This chapter provides an account of the archeological survey. The detail is greater than is the case for most reports of this nature for several reasons. The first of these reasons is that on the basis of their geomorphological study, Britsch and Dunbar (1990) concluded that a large number of sites might be located within the study area. Their prediction was based on the presence and age of the various natural levees and the access these might have provided to the rich natural resources of the Barataria Basin. The prediction seemed reasonable, particularly since no systematic survey had ever been conducted in the vicinity of Davis Pond. However, the results of survey indicate that site density is actually quite low. Because this result was not anticipated, the details of field work are included here rather than a brief overview. It was felt that a summary approach might leave questions about the confidence with which the results should be accepted. The detail is also justified because, based on these results, only a limited

amount of additional survey is recommended for the ponding area located between the guide levees and north of Lake Cataouatche.

Overview of Survey

Archeological survey in the Davis Pond project area began with a pedestrian survey/shovel test regime on April 1, 1991. In some areas, a soil sampler was used to extract cores below the bottom of shovel tests from 30 to 60 cm depth. This was done on alternate transect lanes. Subsequent to the initial shovel testing procedure, auger tests were excavated to a depth of 2 m in some portions of the study area. Also, in portions of Area 8, auger tests were substituted for shovel tests to obtain deeper coverage of the natural levee.

The survey parcels were comprised of two categories of property: (1) the construction impact corridors (for the riverside inlet structure, the diversion channel from the river to U.S. Highway 90, and the guide levees on the eastern and western flanks of the freshwater ponding area north of Lake Cataouatche), and (2) selected high probability areas along relict distributary channel levees within the ponding area. The former category encompassed approximately 175 acres. This represents one hundred percent of the area of direct impact north of Highway 90 (Figure 6). The latter category encompassed approximately 185 acres (Figures 6 and 9). Because of seasonal inundation and the variable degree of flooding from year to year, it is difficult to estimate what percent of the natural levees within the larger ponding area the latter category represents.

Extensive portions of the impact corridors lie within permanently inundated cypress swamp or marshland. The guide levee impact corridor along the eastern and northeastern flank of the ponding area was accessible only by boat from adjacent waterways. The boat survey conducted in those areas (Areas 3 and 4) is discussed after the pedestrian survey. The selected areas on interior distributaries were concentrated on the higher portions of the natural levees near the western flank of the ponding area, and where the diversion channel will cross several of the distributaries between U.S. Highway 90 and the northern end of the marshland ponding area.

Areas Too Inundated for Pedestrian Survey

Field reconnaissance conducted on April 1 and October 24, 1991 showed that all of survey Areas 5 and 6 and most of

area 2C are permanently inundated (Figure 2). Judgmental shovel tests were placed on several low dirt hummocks in the northwest corner of 2C (close to U.S. Hwy 90). These proved to be sterile deposits of sand and silt. Soil maps and topographical maps of the area depict a broad belt of these terrain features extending about 3.5 km east-west. The center of this belt is 1.2 - 2 km south of the site of the Davis Crevasse of 1884, and these elongated hummocks were deposited by the surging waters of the Mississippi River in a truncated fan-like cone. The natural features therefore were formed in 1884. There was no evidence of late historic or modern utilization of the hummocks since that date. Britsch and Dunbar (1990:8, 18, 22) provide data on a series of borings (8, 5U, 15, and 16/7U) within the splay created by the 1884 Davis crevasse.

Standing water in Area 2D prevented entry. The boat survey crew found the ground in that vicinity (at the western end of the Highway 90 borrow pond) covered by up to 50 cm of water on April 12, 1991. Survey area 8, which comprises the construction impact corridor for the guide levee along the southwestern flank of the ponding area, is permanently inundated except where it crosses the natural levees of the Bayou Bois Piquant distributary. This area is discussed in much greater detail (below).

Survey of Area 1

Survey Area 1 consisted of the seasonally flooded batture between the Mississippi River and the riverside toe of the modern levee. This area will be occupied by the riverside intake of the diversion channel control structure. The relatively steep bankline here has been covered with rip-rap. Behind the rip-rap is the gently undulating batture land surface. Vegetation consists of willows and weeds. Much of Area 1 was occupied by a flooded borrow pond which is linear and parallel to the artificial levee. This borrow pond extended landward from the narrow strip of wooded batture to the riverside toe of levee.

Pedestrian lanes for survey in Area 1 were 20 m wide. Screened shovel tests were excavated at 20 m intervals in each lane. Area 1 at its widest allowed only four transect lines parallel to the river, including one at the river's edge.

The upriver limit of Area 1 is located 400 m downriver from river marker 121 on the west (right descending) bank of the river. A modern catwalk leads from the crown of the levee to a small, modern, riverside structure at this location. The Area 1 corridor measured approximately 640 m

from the upriver to the downriver limit which was roughly opposite a sharp bend in the levee at levee station 3086+29.94.

Rip-rap covered the riverside transect lane from the upriver limit to 480 m downriver from marker 121. Downriver from this point, and extending beyond the boundary of the survey parcel, a broad band of rip-rap covered the batture from the river's edge to the edge of the inundated batture/borrow area parallel to the levee. Shovel tests were excavated in the exposed batture soil but not in the areas covered with rip-rap. In those areas, the surface between the stones was scanned for artifacts or features. No cultural material was recovered in pedestrian survey in Survey Area 1.

However, one historic site (16SC74) was recorded on the batture along the access route to Survey Area 1. It consists of artifacts and in situ brick features exposed on the sloping riverbank between 190 and 280 m downriver from Marker 121. This site, which is outside of the construction corridor, is discussed in Chapter 10.

Survey of Areas 2A and 2B

Survey areas 2A and 2B form a broad corridor running south-southeast from the Mississippi River levee to U.S. Highway 90 (Figure 2). Shovel tests were conducted at 20 m intervals in Area 2A because of the high probability for historic sites based on the presence of a fenced yard here on a Mississippi River Commission map. Shovel tests were excavated at 50 m intervals in Area 2B because of the relatively lesser probability of encountering sites (Chapter 1).

The northern limit of this portion of the study area was marked by the barbed wire field boundary fence south of and parallel to the Texas and Pacific railroad embankment. That railway corridor was adjacent to River Road (LA Highway 18) at this locale. Survey Area 2A is about 400 m wide (design width 1280 feet) parallel to River Road, and runs south-southeast 400 m from the parcel's northern limit.

Area 2B continues farther south-southeast to U.S. Hwy 90, but widens to about 440 m (design width 1400 feet). Area 2B is divided into roughly equal northern and southern portions by the Southern Pacific Railroad (SPRR) embankment, running southwest to northeast. The portion of 2B north of the railway was covered by transects from the north and that portion south of the railway was covered by transects from

the south, as the terrain beside the railroad embankment was partially inundated and created a hindrance to movement.

Transects in all portions of 2A and 2B were oriented at 165/345 degrees, parallel to the long axis of the areas. Most fieldwork in Areas 2A and 2B was conducted by a crew of three. These transects initially paralleled the primary network of plantation drainage ditches in Section 29. A partially overgrown field boundary fence running at 173 degrees demarcates the line between Sections 28 and 29. West of that fence, in Section 28, the primary ditch network runs at 173 degrees. As stated above, however, the 165/345 degree orientation of transects was maintained.

Pedestrian survey of Area 2A and Area 2B north of the Southern Pacific railway embankment was conducted between April 16 and April 23, 1991. Transect coverage began at the northeastern corner of 2A with Transect 1, SO. Transect lanes in 2A were numbered in sequence to the west, to T21 along the western limit of 2A. Shovel tests were enumerated upwards from north to south, SO being along the northern limit of the parcel. Return transects were counted downwards from south to north. Transect lane 1' (east of T1) and transect lane 22 (west of T21) began in the widened corridor of 2B, 400 m south of the northern limit of the parcel. For consistency, the shovel tests on these transects were numbered S400 and higher.

The distance from the northern limit of the survey area to the Southern Pacific railway lengthens along the transects between T1 and T22, in order from east to west (Figures 2 and 6). Transect 1' is 925 m long, while Transect 22 is about 1050 m long. Initially, transects were walked and shovel tested for a distance of 400 m, from the northern parcel limit to the start of the corridor's lateral widening. This allowed completion of survey of Area 2A prior to commencing work in 2B.

All of Area 2A is open pasture. Because of heavy rain at the time of the field survey, some areas of the pasture were temporarily inundated, but only minor detours were required to maintain the transect alignments. Several isolated bricks and fragments of barbed wire were observed in the pasture area on the ground surface. These probably were associated with former fence lines. Isolated bricks may also have been utilized as supports for cattle feeders or water troughs. Isolated *Rangia* shell fragments were observed in cowpaths beside several watering holes or ditch crossings. Judgmental shovel tests placed at these localities failed to reveal any subsurface material. The *Rangia* may have been transported to these spots on cows'

hooves. The only site (16SC73) recorded in Area 2A was a scatter of historic material. The site is discussed in Chapter 10.

In Section 28, the transects crossed two tree-lined east-west ditches and the low road embankments on their sides. These old plantation ditches are shown on the USGS quadrangles (Figures 2 and 6) and on aerial photos of the area. The more northern of the two ditches is within Area 2A. It has a higher embankment/road on its north side. Most of the trees shown lining the full length of the ditch on the COE design memorandum aerial photograph have been removed east of about T15.

Survey of Area 2B began at T22 along the western margin of the area and progressed eastward through T1 along the eastern margin. The more southern of the two plantation ditches mentioned in the preceding paragraph lies within Area 2B. An old barbed wire fence and a low road embankment are present along the south side of the ditch.

Concrete slabs were noted on the east side of a wooden gate in the Section 28/29 field boundary fence at S505-512 on T11. These probably were hauled in to provide improved footing in the muddy field road. The shovel test at S550 on T12 yielded charcoal fragments intermixed with 5YR 4/6 (yellowish red) gritty silt. Burnt clay lumps, small plastic fragments, an iron nail, and iron wire fragments were recovered from this test. The evidence of in situ burning in association with the modern refuse suggests that a fire, perhaps of brush from the nearby field fences, occurred at this locale. Modern brush-burning along or near the fence lines explains the presence of charcoal and artifacts here. This locality was not assigned a site number.

A tree-lined east-west ditch with a narrow embankment on its south side delimits the southern limit of open pasture in Section 28. This old plantation ditch is shown on the USGS quadrangle (Figures 2 and 6). South of the ditch are small trees in a second growth forest occupying formerly open field or pasture. This area was largely inundated during the field survey. The field may have been abandoned due to poor drainage.

An electrical transmission line (parallel to the Southern Pacific Railroad route in this area) runs through a 56 m wide clearcut in the overgrown field. The clearcut is at S862 to S918 on T21. The wooded portion of Section 28 in the area south of the power line clearcut was severely inundated, which required some repositioning of transects. Because of severe inundation, a small portion of Area 2B

could not be surveyed. However, its low elevation and tendency to flood indicates that this area would not have been occupied during either historic or prehistoric times. It represents the rear portion of the Mississippi River natural levee.

East of the Section 28/29 field boundary, open fields continue south to the Southern Pacific Railroad embankment. This part of Section 29 was better drained than the adjacent area in Section 28. On T9, a small amount of cinder, probably displaced railway ballast, is present on the surface near the railroad embankment. Along T1 and T2 low ridges of earth are noticeable along the southern end of the field, at about S910-S920. These probably are the product of bulldozing and burning brush at the edge of the field. Small fragments of *Rangia* and bottle glass found on the surface here have been displaced from their original position, and may be associated with the railroad. No historic artifacts or features were recorded during the survey of Area 2B north of the Southern Pacific Railroad embankment.

Survey of that portion of 2B south of the railway embankment was performed by a crew of three. Access was via a dirt road leading northwest from U.S. Hwy 90. The dirt road is wholly within Section 29 and leads to an abandoned storage bunker and nearby cluster of buildings which have been demolished in recent years. This property is owned by the Dupont Corporation. Most of Area 2B is west of the storage complex. The construction impact corridor will not include the central storage bunker, but its eastern boundary runs through the approximate site of the westernmost of the mapped structures in the complex. The structures in this area were reportedly dated to the World War II era (Van Button, personal communication 1991). Dupont requested that no shovel tests be excavated in the area where these structural remains were located.

The portion of Area 2B south of the SPRR embankment is slightly narrower (design width 1300 feet) than that part north of the tracks. The length of transects increased from west to east south of the tracks, from 490 m on T1 to 580 m on T18. The compass bearing of 165/345 degrees was maintained on the transect lanes in this area. The southern foot of the SPRR embankment was utilized here as the SO reference line.

At T1 S50 a dirt hummock rose about 1 m above the surrounding ground surface. This hummock was about 5 m north-south and 10 m east-west. A judgmental shovel test on the center of this small ridge yielded a small fragment of

chert shatter and a small amorphous iron fragment in 10YR 4/3 (brown) loose silt. These are almost certainly derived from the railway embankment. Coring within the shovel test revealed silt from 0-80 cm, mottled clayey silt from 80 to 127 cm and plastic clay below 127 cm.

Additional examples of irregular linear ridges were encountered in pedestrian survey of Area 2B and reconnaissance in Area 2C. These are composed of loose sand or silt and are of variable orientation, although they are most frequently aligned roughly northwest to southeast. These terrain features can be attributed to the Davis Crevasse of 1884. The chert and iron fragments found in the ridge closest to the railway may be displaced railroad ballast and associated refuse, as the line occupied its present location in 1884. No cultural materials were recovered from any other hummocks tested. The largest hummock encountered in pedestrian survey was intersected by T1 at S440. That hummock is about 2 m high, 45 m long (roughly east-west), and up to 10 m wide.

Transect 1 reached the pipeline clearcut parallel to U.S. 90 at S490, and the borrow trench adjacent to the highway at S505. The northern edge of the partially inundated clearcut served as the southern limit of pedestrian survey in Area 2B. Several poorly defined swales running roughly northwest to southeast are present along the southwestern margin of Area 2B. These terrain features may partially predate the Davis Crevasse, but the pre-crevasse surface drainage pattern can no longer be recognized on the ground. Transects 1-6 cross the old plantation drainage ditch along the Section 28/29 line at an acute angle. Near the SPRR embankment the ditch is somewhat obscured by infilling.

A wide slough running east-west is located on the east side of the section line ditch. This broad, shallow slough is about 50 m wide at its intersection with the ditch, ca. S250-S310. The banks of the slough exhibit only slight elevation, and it is not clear if the channel predates the Davis Crevasse. The slough divides into smaller arms east of T14.

The COE design memorandum aerial photographs of Area 2B appear to show a group of parallel or subparallel east-west ridges and swales north of the broad slough and immediately east of the section line ditch. These may form part of the plantation's field drainage pattern but are of relatively small dimensions. One example measured in the field was 40 m long, from T6 to T8. The orientation of the ridge was about 80 degrees. The ridge was 1 m high and 5 m wide (S135-S140

on T7), and the total width between the midlines of the adjacent swales about 20 m. Farther east, the ridges generally are wider. The greater width of the swales compared to the ridges suggests that these are natural terrain features, perhaps formed during the Davis Crevasse.

The present section line ditch and several parallel ditches farther east cut across a number of natural ridges. These drainage ditches were therefore excavated subsequent to the 1884 crevasse or, if they predate 1884, were cleaned and restored after that event. One of the plantation ditches (bearing 160 degrees) runs along the west side of T14 and can be traced on the ground from S225 to S305, where it enters the broad east-west slough. The ditch crosses east-west ridges at S225-245 and S265-S285. Another ditch (bearing 160 degrees) lies between S148 and S165. An east-west ditch crossing T17 and T18 was traced for about 45 m at S280. The presence of these old drainage ditches suggests that at least a portion of this southern end of Area 2B was utilized for agriculture after 1884, but no historic material was recovered in association with the ditch network.

A large amount of construction debris (concrete rubble, *Rangia*, steel pipes, tar paper, bricks) was located near the eastern edge of the survey corridor. The material was recorded between S310 and S330 on T18, with a concentration of bulldozed structural cement rubble at S325. This marks the location of the structure (shown on the 1967 USGS quadrangle) at the end of the northwest branching road in the explosives complex (Figures 2 and 6). The rubble was too dense in the center of the debris to permit shovel testing. In addition to structural debris, modern artifacts such as an aluminum window frame and plastic bottles were scattered over the area. No historic material was recovered at the site and the location was not designated an archeological site.

Survey of Area 7A

Pedestrian survey in Areas 7A, 7B, 7C, 10A, and 10B (Figures 2 and 6) and 7A' and 7B' (Figure 6) was conducted between April 1 and November 22, 1991. These areas include portions of the construction corridor for the western guide levee (Figure 2) or represent segments of interior distributary ridges selected for collecting data on site density and location. The probability of recording prehistoric sites in these areas was considered to be relatively high so 20 m wide transects with shovel tests at 20 m intervals were used. That regime of shovel testing and

soil sampling was supplemented by auger tests and 50 X 50 cm excavation units at possible site locations.

Area 7A is the parcel located north of the Willowdale Subdivision's ring levee and extending east from Willowdale Boulevard to Garland Canal. All of 7A lies within the south half of Section 43 and has been the property of the Levert Land Company or its predecessor since the late nineteenth century (Chapter 6). Preliminary field reconnaissance was conducted here on April 1, 1991. The crew walked east from Willowdale Blvd to Garland Canal on a well-defined path running parallel to the north bank of the unnamed east-west bayou in the center of this parcel. The path crosses the canal on a small wooden bridge that is in poor condition although it is passable on foot. The crew then walked south on the western spoil bank of the canal. Higher water during much of 1991 made this route across the bayou channel impassable during most of the period of fieldwork. Another path, well maintained for the use of three-wheelers, crosses Garland Canal south of the bayou on a wooden bridge that is in good condition. The crew walked west from the canal to Willowdale Blvd. Entry to the path from the west is controlled by a gate in a barbed wire fence parallel to Willowdale. This gate remained unlocked during the period of fieldwork. The path parallel to the south bank of the unnamed east-west bayou is easily accessible from the ring levee surrounding the Willowdale subdivision.

After completing an initial reconnaissance in 7A, the crew began a series of east-west transects parallel to the ring levee. Farther east in Area 7A, the bayou turns to the northeast. The transect bearings were adjusted there in some areas to maintain a course parallel to the mildly meandering channel. The initial compass bearing was 86 degrees. The transects in 7A were numbered in sequence from south to north, beginning 20 m north of the intersection of the ring levee with Willowdale Blvd. Transects 5 and 6 (100 and 120 m north of the ring levee) were impassible at the western end of the parcel, as they lay in the bayou channel at its intersection with Willowdale Blvd. Transects 7-14 (140-280 m north of the levee) begin at Willowdale Blvd. T14 SO is immediately south of the pipeline clearcut which intersects Willowdale Blvd approximately 300 m north of the levee. The E0 reference line is the edge of the weedy clearcut adjacent to Willowdale Blvd. At T1 the barbed wire fence parallel to the road and 28 m east of the asphalted surface, served as the E0 reference point. Because Willowdale Boulevard runs north-northeast, placing the east reference line parallel to it offsets each line of transect shovel tests slightly to the east in sequence through the

transects from south to north. The edge of the roadside clearcut is generally 20-25 m east of the blacktop.

Survey of Area 7A south of the bayou channel was conducted between April 1 and 9, 1991. Survey of 7A north of the channel was conducted between April 4 and October 30, 1991. Augering and the excavation of several 50 X 50 cm excavation units in 7A were carried out between December 11, 1991, and February 17, 1992. The course of fieldwork in Area 7A was conducted over a lengthy period of time due to frequent inundation during a year (1991) of record rainfall.

Transects 1-3, 20-60 m north of the ring levee, extended east 920 m to the southwestern border of an inundated interdistributary swamp. The mapped length of the east-west levee segment east of Willowdale Blvd is 2956' (approximately 904 m). The interdistributary swamp separates the unnamed distributary ridges which constitute Areas 7A and 7B. Southeast of T1 and T2 E920, the terrain rises slightly. That area formed part of Area 7B (below). T1 E920 is immediately north of the northeast corner of the Willowdale ring levee.

Shovel tests could not be dug along T2 at E0, E20, and E60-100 because these were located in modern trash dumps. T3 and T4 began at E40, just east of the barbed wire fence near Willowdale Blvd, which here marks the limit of roadside refuse deposit. T4 runs east to the southwestern border of the swamp at E820. T5 and T6 E780 are located by the western end of the 7A/7B interdistributary swamp.

Shovel tests could not be dug along T4 at E80 and E140-420, where the east-west bayou swings slightly southward. The southern edge of the bayou lies roughly along T3 at E240-280 and at E320. Shovel tests were dug south of the bayou between E560 and E780 on T5 and from E720-780 on T6. Transects 1-6 followed a consistent bearing of 86 degrees.

Transects 1A-6A continued the pedestrian survey northeast through Area 7A south of the channel. The field crew repositioned north of the 7A/7B interdistributary swamp. Transect 1A skirted the northwestern border of the swamp. T1A E0 was at the approximate position of T4 E860. The starting points of T2A-4A were positioned northwest of T1A E0 at 20 m intervals. Transect 4A was the nearest to the south bank of the east-west channel. The initial compass bearing of T1A-4A was 30 degrees.

An unmapped channel cuts across the bayou's natural levee at T3A E130-140. This small channel does not follow a straight course but follows a general north-south bearing.

It does not cut across the natural levee on the north side of the EW bayou. The bayou end of the small channel is opposite T12 E840 on the north bank of the bayou. The forest path crosses this channel on a small wooden bridge. The crew repositioned on the east bank of the channel, and the transect bearing was altered to 60 degrees. At this location, the east-west bayou and the northwest border of the 7A/7B swamp were assuming a more easterly bearing. At E300, the transect bearing was altered to 80 degrees.

The crew crossed a crude, recently rutted north-south road at E320. This rough track continued north across the bayou and south into the 7A/7B swamp. It crosses the natural levee north of the east-west bayou at E1066 on T12. The same track crosses the northern and southern natural levees in 7B at, respectively, 250 and 400 m east of the Willowdale ring levee. It also crosses the northern and southern natural levees in 7C at, respectively, 470-490 m and 518-530 m east of the ring levee. The track diverges from the levee road in the southern part of 7C at E570 and continues southward into the swamp south of Bayou des Saules. The same track may be that which crosses Bayou Bois Piquant, the next distributary to the south. This crude track skirting the east side of the Willowdale subdivision follows a general course from north-northwest to south-southeast. This route is used by marsh buggies travelling south from U.S. Highway 90 (Mike Comardelle, personal communication, June 9, 1991).

Two small *Rangia* shells were observed on the ground surface by the intersection of the mudbuggy track and the path parallel to the bayou, at T3A E320 in Area 7A. A small *Rangia* fragment was observed in the path at E320, between T1A and T2A. No subsurface *Rangia* was discovered in shovel tests in this vicinity and the soil sampler yielded only clay at T3A E320. The *Rangia* present here and at other locales where the mudbuggy track crosses natural levees cannot be interpreted as evidence for prehistoric occurrences. *Rangia* shells and shell fragments are probably inadvertently transported on the wheels or body of mudbuggies. As *Rangia* now occur naturally in the upper reaches of the Salvador-Cataouatche drainage, such shell could be picked up by the vehicles while crossing the watercourses in this region. The extremely diffuse scatter of shell in the mudbuggy track, with an even lower density scatter of *Rangia* in intersecting paths, suggests that small amounts of shell are dislodged from the vehicles when they cross the natural levees. The absence of shell in nearby shovel tests and soil cores, or in other soil exposures in the rutted path and in the roots of fallen trees, suggests that *Rangia* is not present in the subsoil at these crossings

but is a recent contaminant. Further testing subsequently was conducted at several areas of surface *Rangia* (below), without yielding any evidence of cultural strata.

The field crew continued T1A-4A from the mudbuggy track to E480, where the bearing was altered to 90 degrees. The path forked at E570, and beginning at this point T4A was on the south side of the main trail. T4A intersected a dry, shallow, north-south ditch at E601-603. A member of the Boutte Hunt Club who maintains a hunting camp east of the Garland Canal called the two-meter wide ditch the Little Garland Ditch (Mr. Reed, personal communication 1991). This cultural feature was not observed in later fieldwork on the north bank of the east-west bayou. The USGS quadrangle shows that Garland Canal turns from a north-south course to a more easterly bearing just north of the bayou's natural levee. If the north-south alignment of Garland Canal were extended southward it would follow approximately the course of Little Garland Ditch. The dry ditch may occupy part of the original route of Garland Canal across the east-west bayou and its levees, perhaps abandoned in favor of a more effective discharge flow slightly to the east.

The original construction date of the Garland Canal and the dates of any alterations to its alignment are unknown. However, canals of this nature were common in the antebellum period when they were used for transporting wood that was used for refining sugarcane, as well as timber and shell for use as construction materials. No historic material was recovered along Garland Canal or along any other drainage ditch in this portion of the project area.

Transect 4A intersects the Garland Canal by a shallow ford at E670. The path crosses the canal slightly farther south over a small wooden bridge in good condition. This path is used by Mr. Reed to reach his hunting camp. The field crew turned westward from the canal and went back along T5A and T6A. Shovel tests were possible on T5A and T6A from E600 to E660. Farther west, T4A skirted the south edge of the east-west bayou. The natural levee widens west of about E50. Additional shovel tests were conducted on T5A and T6A between E40 and W60. The T6 E780 position flagged on April 4 was located between T5A and T6A at W60. The T6 E780 position flagged on April 4 was located between T5A and T6A at W60. Shovel testing in the southern portion of 7A was completed at this juncture.

Survey of Area 7A north of the bayou channel was conducted between April 5 and October 30, 1991. Transects 7-9 (140-180 m north of the Willowdale ring levee) utilized an initial compass bearing of 86 degrees. T7 skirted the

northern edge of the east-west bayou. An area used as a trash dump lies just north of T9 by Willowdale Blvd.

Small fragments of *Rangia* were recovered from shovel tests at E40 and E60 on T8, in the path running parallel to the north bank of the east-west bayou. Several *Rangia* shells and fragments were observed on the ground surface at E38 and E60 on T8 during subsequent visits to this locale (April 23-24). During these later visits additional shovel tests were placed on a 5 meter grid bracketing the original positive shovel tests, and a soil sampler was employed to test the stratigraphy to a depth of 95 cm at the supplemental shovel tests. T8 E40 was designated N0 E0 for the gridded tests at this location.

Shovel tests were placed at N0 W5, N0 E5, N0 E15, and N0 E25 in the slightly meandering east-west path. Shovel tests at N5 E0, N5 E10, N5 E20, S5 E0, S5 E10 and S5 E20 bracketed the original shovel tests on the north and south. These shovel tests generally yielded a 2.5Y 5/2 (grayish brown) silty clay loam just below the thin humic layer of the forest floor. The silty clay or stiff clay continued to a depth of 65-80 cm. Sandy clay loam, probably corresponding to the more active phase of this distributary, was encountered below ca. 70 cm.

Soil cores were obtained at N5 W5, N5 E5, N5 E15, N5 E25, N0 E0, N0 E10, N0 E20, S5 W5, S5 E5, S5 E15, and S5 E25. The cores at N0 E0 (T8 E40) and N0 E20 (T8 E60) revealed a 10YR 3/2 (dark grayish brown) silty clay topsoil above 2.5Y 4/2 (dark grayish brown) stiff clay. The sandy clay loam, becoming more silty or clayey with depth, was encountered at 74 cm at N0 E0 and at 70 cm at N0 E20. None of the shovel tests or soil cores at this locale yielded any artifacts or subsurface *Rangia*.

The crew noted additional *Rangia* on the trail from Willowdale Blvd to T8 E40, from the edge of the road to ca. E14, and about 45 m north of T8 E40 on a modern dirt road leading to a trash pile in the woods. Therefore, the *Rangia* shell found in shovel tests at T8 E40 and E60 probably represents a modern contaminant inadvertently transported a short distance along the forest path. This occurrence, where extensive shovel tests and surface reconnaissance yielded no artifacts, does not constitute an archeological site.

The field crew continued eastward on T7-9 on bearing 86 degrees. T7 skirts the north side of the east-west bayou from E160 to E480, where it intersects the bank. T8 intersects the bayou at E580, as did T9 at E620. T10 began

north of T9 at E480. T11 and T12 began at E640. T10 intersected the north side of the bayou at E690, T11 at E370, and T12 at E760. These transects were later completed between Willowdale Blvd and their starting points.

Transects 13-15 (260-300 m north of the ring levee) began 480 m east of Willowdale Blvd. T15 was later completed west to E460, where it intersected inundated swamp. Transects 13 and 14 were completed west to Willowdale Blvd. T15 skirts the edges of the permanently inundated cypress swamp to the north. The crew detoured around an extensive overgrown clearcut area (shown as an oval forest clearing in aerial photos) which proved almost impenetrable. The western end of this underbrush was intersected by T15 at E575, by T14 at E570, and by T13 at E530. T12 intersected it at E600 and T11 at E585. Repositioning of T12-13 was necessary at E780, beyond the eastern end of the heavy brush.

Because of the northward turn in the course of the bayou, the compass bearing was altered to 60 degrees at E780. T12 E780 was only 3 m from the bayou-side inundation. T14 coverage began again at E860, beyond the brushy clearing.

At T12 E920 a single oyster shell was noted on the ground surface 4 m south of the forest path and 2 m north of the bayou. Shovel tests at T12 E920 and E940 yielded 10YR 3/2 (very dark grayish brown) soft clayey silt. At T13 E1020, a medium-sized *Rangia* shell was observed on the surface, 3 m north of the path. A fragment of oyster shell lay on the south side of the path at E1030, between T12 and T13. Two oyster shells and one fragment were on the surface by the south side of the path at T13, E1042-1045. T13 intersected the north-south mudbuggy track crossing the natural levee at E1068.

The shovel test at T13 E1040 yielded oyster shell fragments in the 10-20 cm and 20-30 cm levels. The oyster shell was recovered from an actual depth of ca. 15-25 cm, especially from 15-20 cm. The test revealed 10YR 3/2 (very dark grayish brown) soft silty clay at 0-10 cm, 10YR 5/2 (grayish brown) compacted silt with mottling at 10-35 cm, and 10YR 5/2 (grayish brown) silty clay below 35 cm. A supplemental shovel test at T13 E1050 revealed a comparable column of silty clays and clays, without *Rangia* or oyster.

When the crew returned to this locale for further work on February 13, the surface shells previously noted on the ground surface along T13 E920-1040 and at E1166 on April 24-25 were not relocated. The shovel test at T13 E1040 was

designated as the datum for the locale. A 50 X 50 cm excavation unit was placed at T13 E1030. It was excavated by arbitrary 10 cm levels to a depth of 50 cm, and all soil was screened. An auger test in the center of the unit was excavated to a depth of 150 cm. No artifacts were recovered. Stratigraphy in the combined unit and auger test was:

0-6 cm	10YR 3/2 (very dark grayish brown) silt loam
6-50	10YR 3/2 (very dark grayish brown) clayey silt; water table at 35 cm; many large roots at 30+ cm. [Continued as an auger test.]
50-80	10YR 4/2 (dark grayish brown) silt, with 7.5YR 3/2 (dark brown) mottling
80-110	10YR 4/2 (dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
110-150	2.5Y 4/2 (dark grayish brown) silty clay with 10YR 4/6 (dark yellowish brown), 10YR 2/2 (very dark brown), and 5Y 5/1 (gray) mottling; small white concretions; silt content increases with depth while the quantity of concretions decrease

This unit, as well as supplemental shovel tests 10 m to the north and south, yielded no artifacts or shell.

Rangia was noted in the mudbuggy track at E1080, 4 m south of the T16 alignment and also 4 m south of the T15 alignment. Other *Rangia* was noted on the surface at E1070 on T13 and at E1060, between T13 and T14. This diffuse distribution of *Rangia* in and near the mudbuggy track corresponds to its presence at other bayou crossings east of Willowdale (above). The *Rangia* here can be satisfactorily ascribed to modern transportation via the mudbuggy track. The oyster shell present at E920, E1030-1045 (above), and at E1166 (below) does not display an association with the mudbuggy track, although the isolated occurrences of *Rangia* at E1020 and E1160 exhibit an apparent correlation with the presence of oyster.

An unmapped north-south channel cuts through the natural levee just east of the mudbuggy track. T12 intersects the channel at E1084, T13 at E1090, and T14 at E1094. The western end of a small, delapidated wooden footbridge crosses the channel here. The T14 E1120 position east of the channel was flagged on April 24, but due to prevailing inundation a field crew was unable to cross the

channel again until October 25. The bearing of 60 degrees was maintained east of the north-south channel on T12-14.

A small *Rangia* fragment was recovered in the top 15 cm of the shovel test at T14 E1160, about 17 m north of the east-west path. The topsoil here and in nearby shovel tests is 2.5Y 5/2 (grayish brown) dry compacted silt to an average depth of 45 cm. The underlying 2.5Y 4/2 (dark grayish brown) silty clay is more moist and plastic. A small fragment of oyster shell was observed on the path at T13 E1166. A judgmental shovel test was placed on a small rise of ground (from an old tree fall?) 5 m north of T13 E1160. This test was negative. The field crew returned to this locale for further testing on February 13 and 17, 1992.

On February 17, a 50 X 50 cm excavation unit was placed at T14 E1160. The unit was excavated by arbitrary levels to a depth of 40 cm, and an auger test at the center of the unit was excavated to a depth of 120 cm. Inflow of water prevented deeper testing. Both the unit and the associated auger test were sterile. Stratigraphy observed within the unit and auger test was:

0-5 cm	Marsh muck and 10YR 3/2 (very dark grayish brown) clay loam
5-20	10YR 3/2 (very dark grayish brown) wet clayey silt with abundant small roots
20-40	2.5Y 3/2 (very dark grayish brown) wet fine sandy silt loam with 10YR 4/6 (dark yellowish brown) mottling. [Continued as auger test].
40-60	Mixed 2.5Y 4/2 (dark grayish brown) and 5Y 3/1 (very dark gray) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
60-120	Same as above but is now fine sandy silt. Influx of water makes it impossible to auger deeper.

Supplementary shovel tests 10 m from the unit at bearing 60, 240, and 150 degrees also failed to yield artifacts.

Garland Canal intersected the natural levee at E1410. The forest trail crosses the canal about 10 m north of the bayou inundation. The distributary natural levee widens to the east approaching Garland Canal. From E1400, near the bank of the canal, the field crew surveyed westward (on bearing 240 degrees) on T9-11. T9 intersected the northern edge of the bayou-related inundation at E1380, T10 at E1360, and T11 at E1120. Transects 15-17 were conducted westward from E1080 by the unnamed north-south channel on bearing 240 degrees. Transect 17 skirts the edge of the cypress swamp

to the north. These transects reached dense, almost impenetrable brush at E860, where they were terminated.

Auger tests were excavated to a depth of 200 cm in Area 7A on December 11 and 12. The line of east-west auger tests was placed 215 m north of the Willowdale ring levee. Auger tests were excavated at 50 m intervals. AT1 was placed 120 m east of Willowdale Blvd. AT2-5 were placed 50, 100, 150, and 200 m east of AT1. Impenetrable brush was encountered 220 m east of AT1. AT6-8 were conducted westward from the east-west bayou. These tests were at 550, 500, and 450 m east of AT1. Auger tests 9-12 were performed in 7A south of the east-west bayou. The unmapped north-south channel cutting across the natural levee south of the bayou served as the survey reference point. Auger tests were placed at E700, 750, 800, and 850. All auger tests in 7A were negative. They generally revealed silty clays above silts and sandy silts associated with naturally levee deposition along the distributary (Table 22). Britsch and Dunbar (1990:2) report that boring 9U-DAV was obtained at the intersection of Willowdale Blvd and the pipeline clearcut, about 300 m N of the Willowdale ring levee. Wood from a depth of 2.60 to 2.65 m provided a C-14 date of 1760 $\pm$ 75 B.P.

Survey of Area 7A'

Fieldwork was conducted in Survey Area 7A' between April 15 and November 22, 1991. Area 7A' lies within Sections 43 and 28, owned by the Levert Land Company. The area extends east from the Garland Canal to cover the heads of the three channels diverging from the unnamed east-west bayou followed in Area 7A (Figure 6). It was selected for survey after no prehistoric sites were discovered in large parts of the study area. Additional coverage was desired because the apparent absence of sites within most of the survey area was an unexpected finding.

Reconnaissance was conducted east of Garland Canal and south of the bayou on April 15. The field crew followed the three-wheeler trail to the southeast. The trail follows the north bank of a channel diverging southward from the east-west bayou. A hunting camp is located at the end of the well-maintained trail 800 m east-southeast of Garland Canal. This is probably the modern structure used by Mr. Reed of the Boutte Hunting Club. The crew followed a narrow path 100 m farther southeast, where complete inundation blocked further advance. The terrain was generally inundated east of the canal.

Table 22. Auger Test Stratigraphy in Area 7A.

Area 7A Auger Test No. 1 (12/11/91), E 0

0-20 cm	2.5Y 3/2 (very dark grayish brown) silty clay
20-220	2.5Y 4/4 (olive brown) clayey silt; increasing silt content with depth; color changes to 2.5Y 4/2 (dark grayish brown) gradually; by 220 cm it is pure silt

Area 7A Auger Test No. 2 (12/11/91), E 50

0-40 cm	2.5Y 3/2 (very dark grayish brown) silty clay
40-140	2.5Y 4/4 (olive brown) clayey silt
140-180	2.5Y 4/2 (dark grayish brown) with 5Y 3/1 (very dark gray) and 7.5YR 4/6 (strong brown) silt mixed in; higher proportion of silt than stratum above
180-200	2.5Y 4/4 (olive brown) silt (waterlogged)

Area 7A Auger Test No. 3 (12/11/91), E 100

0-40 cm	2.5Y 3/2 (very dark grayish brown) silty clay
40-80	2.5Y 4/4 (olive brown) clayey silt
80-180	2.5Y 4/4 (olive brown) clayey silt mixed (laminated) with 5Y 3/1 (very dark gray) silt and mottled with 7.5YR 4/6 (strong brown); increasing silt content with depth
180-200	2.5Y 4/2 (dark grayish brown) silt

Area 7A Auger Test No. 4 (12/11/91), E 150

Stratigraphy similar to that in No. 3 (above)

Area 7A Auger Test No. 5 (12/11/91), E 200

	Stratigraphy similar to that in No. 3 and No. 4 (above) except
at 200 cm	some fine sand in the 2.5Y 4/4 (olive brown) silt

Table 22 (continued). Auger Test Stratigraphy in Area 7A.

Area 7A Auger Test No. 6 (12/11/91), E 550, 50 m E of E-W bayou

0-80 cm	2.5Y 3/2 (very dark grayish brown) clayey silt
80-140	2.5Y 4/4 (olive brown) clayey silt, higher silt content with increasing depth
140-180	2.5Y 4/4 (olive brown) silt
180-200	2.5Y 4/4 (olive brown) silt with some fine sand

Area 7A Auger Test No. 7 (12/11/91), E 500, 50 m W of Auger Test No. 6

Stratigraphy similar to that in Auger Test No. 6 (above)

Area 7A Auger Test No. 8 (12/12/91), E 450

0-60 cm	10YR 3/2 (very dark grayish brown) silty clay, lighter silt with greater depth
60-80	2.5Y 4/4 (olive brown) silty clay
80-100	2.5Y 4/4 (olive brown) silty clay mixed with 2.5Y 4/2 (dark grayish brown) clayey silt
100-120	2.5Y 4/2 (dark grayish brown) clayey silt mixed with 10YR 4/6 (dark ellowish brown) clayey silt
120-180	same as above but mixed with 5Y 4/1 (dark gray) clayey silt
180-200	2.5Y 4/2 (dark grayish brown) silt with some fine sand
200-220	2.5Y 5/2 (grayish brown) silt with 7.5YR 4/4 (brown/dark brown) mottling

Area 7A Auger Test No. 9, E700

0-40 cm	2.5Y 3/2 (very dark grayish brown) mucky silty clay
40-140	mixed 2.5Y 4/2 (dark grayish brown), 5Y 4/1 (dark gray), and 10YR 4/6 (dark yellowish brown) clayey silt, very compact
140-160	mixed 2.5Y 5/2 (grayish brown) and 10YR 4/6 (dark yellowish brown) clayey silt
160-220	mixed 2.5Y 4/2 (dark grayish brown), 5Y 5/1 (gray), and 10YR 4/6 (dark yellowish brown) clayey silt with some fine sand

Table 22 (continued). Auger Test Stratigraphy in Area 7A.

Area 7A Auger Test No. 10 (12/12/91), E 750

0-40 cm	2.5Y 3/2 (very dark grayish brown) silty clay
40-60	2.5Y 4/4 (olive brown) clayey silt
60-80	2.5Y 5/2 (grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
80-100	same as 60-80 cm but mixed with 10YR 3/2 (very dark grayish brown) silt
100-160	Same as 60-80 cm but with less clay, more silt, and with some fine sand
160-200	2.5Y 4/2 (dark grayish brown) silt with fine sand
200-220	2.5Y 5/2 (grayish brown) and 10YR 4/6 (dark yellowish brown) silt

Area 7A Auger Test No. 11 (12/12/91), E800

0-20 cm	2.5Y 3/2 (very dark grayish brown) silty clay
20-100	mixed 2.5Y 4/2 (dark grayish brown), 2.5Y 4/4 (olive brown), and 10YR 4/6 (dark yellowish brown) silty clay changing to clayey silt with increasing depth
100-120	2.5Y 4/2 (dark grayish brown) clayey silt
120-140	mixed 2.5Y 5/0 (gray) and 10YR 4/6 (dark yellowish brown) clayey silt
140-180	mixed 5Y 5/2 (olive gray) and 10YR 4/6 (dark yellowish brown) clayey silt
180-200	mixed 2.5Y 5/2 (grayish brown) and 10YR 4/6 (dark yellowish brown) clayey silt
200-220	mixed 5Y 5/2 (olive gray) and 10YR 4/6 (dark yellowish brown) silt

Table 22 (continued). Auger Test Stratigraphy in Area 7A.

Area 7A Auger Test No. 12 (12/12/91), E 850

0-60 cm	5Y 4/1 (dark gray) and 10YR 4/6 (dark yellowish brown) silty clay
60-100	5Y 4/1 (dark gray) and 10YR 4/6 (dark yellowish brown) and 5Y 5/2 (olive gray) silty clay
100-120	5Y 5/2 (olive gray) and 10YR 4/6 (dark yellowish brown) clayey silt
120-160	5Y 4/1 (dark gray) and 10YR 4/6 (dark yellowish brown) clayey silt
160-200	2.5Y 4/2 (dark grayish brown) and 10YR 4/6 (dark yellowish brown) clayey silt
200-220	Mixed 2.5Y 4/0 (dark gray), 5Y 5/1 (gray), and 10YR 4/6 (dark yellowish brown) clayey silt

On this date the crew inadvertently advanced south of the intended survey parcel while following the incompletely mapped diverging channel. The camp building lies outside the survey area and east of the project's guide levee construction corridor. The structure is located in the southern end of Section 28 or the northern end of Section 41. The crew did not return to this locale. Reconnaissance on October 30 showed that the three-wheeler trail follows the bank of the "intermittent" channel, which diverges southward from the east-west bayou course about 120 m east of Garland Canal. About 480-500 m southeast along the trail from the fork in the channel an unmapped shallow channel cuts across the natural levee. Actual pedestrian survey did not extend that far south.

Survey was conducted in the southern portion of 7A' during November 1-22. Transects 1-5 follow a bearing of 90 degrees from the Garland Canal to the inundation west of the divergent channel flowing southeast. T1 skirts the south bank of the east-west bayou. T5 skirts the edge of the 7A/7B interdistributary swamp to the south. The bridge over Garland Canal crosses between T4 and T5. T1 intersects with an inundated area at T2 E60, T3 E80, T4 E120, and at T5 E60. Transect 1 was carried across the head of the first, south-flowing, divergent channel, and transects 20-22 were conducted north of T1. This set of transects began at E100, by a broad area of inundation at the intersection of the Garland Canal and the east-west bayou. Transect 22 skirted the south bank of the east-west bayou from E100 to E140. East of this transect the east-flowing divergent channel (mapped as an intermittent watercourse on the USGS quadrangle) occupies that alignment. Transect 21 skirts the south bank of the east-flowing intermittent channel from ca. E160 to E380. T21, T22, and T1 terminate on the inundated levee at E380 south of T1. Transects 2 and 3 were started at, respectively, E140 and E180 on the northeast bank of the first intermittent bayou and were surveyed to E320 at the edge of inundation. Farther southeast, the terrain was inundated in most areas.

Reconnaissance of Area 7A' north of the east-west bayou was conducted on October 25. The field crew followed the forest trail east from the Garland Canal, crossing a wooden bridge in poor condition. This trail follows the north bank of the largest of the diverging channels. This channel, which turns to the north in Section 28, is the best-defined of the three forking channels east of the canal and probably carried most of the discharge of the east-west bayou. The crew followed the path as far as the 10A Survey Area in Section 29. Access to that lower end of the distributary was more difficult during later fieldwork.

Pedestrian survey was conducted in the northern portion of 7A' on November 5 and 7. Transects 6-17 all followed an east-west bearing. T6 E0 is approximately 10 m north of the footbridge across Garland Canal. Transects 6-14 were conducted eastward to the inundated edge of the bayou, which curves gradually northward. T6 intersected with the bayou-side inundation at E40, T7 at E80, T8 at E160, T9 at E260, T10 at E360, T11 at E380, T12 at E420, T13 at E440, and T14 at E480. T15-17 were ended arbitrarily at E500. T6-10 began at the east bank of Garland Canal. The more northern transects terminated at the edge of the permanently inundated cypress swamp on their western ends. Transect 11 hit the cypress swamp at E40, T12 at E140, T13 at E180, T14 at E200, T15 at E340, T16 at E360, T17 at E460. Additional shovel tests were placed at T18 E500 and T19 E500. T19 is at the edge of the cypress swamp. All shovel tests in the northern portion of 7A' were negative.

Survey of Areas 10A and 10B

Fieldwork was conducted in Survey Areas 10A and 10B (Figures 2 and 6) between October 25, 1991 and January 20, 1992. These areas occupy portions of interior distributary ridges which will be impacted by construction of the river diversion outflow channel. Both areas lie within the southern part of Section 29, owned by the GTP Corporation. Initial reconnaissance was conducted in the northern portion of 10A on October 25, accessed through Areas 7A and 7A' north of the east-west bayou. A narrow strip of natural levee was above the inundation level on that date. On October 28, reconnaissance indicated that the survey parcel was completely inundated. On November 4, pedestrian survey was conducted on the narrow belt of exposed levee. T1 began on the alignment of a survey cutline demarcating the western boundary of this parcel. T1 extended 220 m northeast (bearing 45 degrees) on the crown of the natural levee. At T1 E220 began T2, extending 100 m east (bearing 70 degrees). At T2 E100 began T3, extending 80 m east (bearing 90 degrees). That location marks the approximate eastern limit of the impact corridor. COE design width from the Old Channel baseline to the approved channel centerline is 500'; pedestrian survey covered a distance greater than 1000' (approx. 306 m) following the sharp bend in the bayou. The crew repositioned 20 m to the south and executed T4 westward (bearing 270 degrees) 80 m, completing shovel testing on the north side of the bayou. All shovel tests and soil samples here were negative. T1-3 skirted the cypress swamp north of the bayou. T4 skirted the inundated bayou-side. The distance to the bayou from T1 and T2 was less than 20 m.

On January 20, 1992, five auger tests were excavated to a depth of two meters in Area 10A north of the bayou. The initial auger test was placed at the T1 E0 position established on November 4. The subsequent four auger tests were placed at 100 m intervals through the length of the survey area, roughly parallel to the course of the bayou. The auger test transect line ran 250 m northeast (bearing 50 degrees) from T1 E0, then 150 m east (bearing 90 degrees) to its terminus at the AT5 position. No shell or artifacts were recovered in the auger tests.

Stratigraphy in these auger tests is presented in Table 23. These tests generally revealed bedded layers of silty clays or clayey silts to a depth of 60-80 cm. Silt is the primary soil component below ca. 60 cm. Fine sandy silts gradually replace clayey silts with increased depth.

Boring 8U-DAV, at the intersection of geological cross-sections B-B' and D-D', was obtained a short distance north of the 10A auger tests. It yielded a C-14 date of 3570 +/- 75 BP from peat recovered at a depth of 3.87-3.99 m (Britsch and Dunbar 1990:8,16,18,B2,C3).

Area 10A south of the bayou was covered by pedestrian survey on November 12, 1991. The bayou dividing parcel 10A remained uncrossable during the course of fieldwork. The south side of the bayou therefore was accessed from the southwest by a crew following the three-wheeler path through Areas 7A and 7A' south of the east-west bayou. The crew followed a footpath leading east from the head of the first (south-flowing) intermittent diverging channel. This trail passes through the 10B survey area, following the south side of the second (east-flowing) intermittent diverging channel. On November 11 the crew had crossed this east-west channel at a ford 85 m east of the Section 28/29 boundary line, (which is a clearcut along a 24-inch crude oil pipeline (SP-3), but dense brush along this route made it nearly impassible.

On November 12, the crew constructed a makeshift bridge across the east-west channel west of the clearcut, then crossed a second subparallel channel of this divided watercourse. This double channel is shown on the geological map of the region (Britsch and Dunbar 1990:Figure 2, reproduced as Figure 10 in this report) but not on the USGS quadrangle. The east-west intermittent channel is separated into two subparallel courses from the channel's head in Area 7A' to approximately the western limit of the project impact area at the Old Channel baseline. The mid-channel "island" is about 50-60 m wide through most of its length. After crossing both channels, the crew followed an unidentified

Table 23. Auger Test Stratigraphy in Area 10A.

Area 10A Auger Test No. 1 (1/20/92)

0-20 cm	2.5Y 4/2 (dark grayish brown) silty clay
20-40	2.5Y 3/2 (very dark grayish brown) clayey silt
40-60	5Y 4/2 (olive gray) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
60- 120	5Y 4/1 (dark gray) silt
120-140	5Y 4/1 (dark gray) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
140-160	10YR 5/3 (brown) silt
160-180	2.5Y 5/2 (grayish brown) silt
180-200	2.5Y 4/2 (dark grayish brown) fine sandy silt with 5YR 4/6 (yellowish red) mottling

Area 10A Auger Test No. 2 (1/20/92)

0-20 cm	10YR 4/2 (dark grayish brown) silty clay
20-40	10YR 4/2 (dark grayish brown) and 5Y 4/1 (dark gray) silty clay with fine white gritty inclusion
40-60	2.5Y 4/2 (dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) and 10YR 3/1 (very dark gray) mottling
60-80	2.5Y 4/2 (dark grayish brown) and 10YR 4/6 (dark yellowish brown) silt
80-120	2.5Y 4/2 (dark grayish brown) and 10YR 4/6 (dark yellowish brown) fine sandy silt with 10YR 3/1 (very dark gray) mottling
120-140	Same as 80-120 cm except clayey silt with some fine sand
140-180	Same as 80-120
180-200	Same as 120-140 cm

Area 10A Auger Test No. 3 (1/20/92)

0-20 cm	10YR 4/2 (dark grayish brown) silty clay
20-40	10YR 4/1 (dark gray) clayey silt
40-60	2.5Y 4/2 (dark grayish brown) clayey silt with fine sand mixed in with 10YR 4/6 (dark yellowish brown) silt
60-80	Same as above but with 10YR 3/1 (very dark gray) mottling
80-200	Same as above but is fine sandy silt

Table 23 (continued). Auger Test Stratigraphy in Area 10A.

Area 10A Auger Test No. 4 (1/20/92)

0-20 cm	2.5Y 4/2 (dark grayish brown) silty clay
20-40	5Y 3/1 to 4/1 (very dark gray/gray) clayey silt
40-80	Same as above; increasing silt content with increasing depth; some admixing with 10YR 4/6 (dark yellowish brown) silt
80-100	Same as above but with some fine sand present and 10 YR 3/1 (very dark gray) mottling
100-140	Same as above but now almost pure silt with very little clay; whitish, hard concretions mixed in
140-200	Same as 20-40 cm

Area 10A Auger Test No. 5 (1/20/92)

0-20 cm	10YR 4/1 (dark gray) silty clay
20-40	2.5Y 4/0 (dark gray) silty clay with 10YR 4/6 (dark yellowish brown) mottling and whitish, hard concretions
40-60	2.5Y 4/0 (dark gray) and 10YR 4/6 (dark yellowish brown) clayey silt with 10YR 3/1 (very dark gray) mottling
60-80	Same as above; very dense; with hard whitish concretions
80-100	Same as above but with some fine sand
100-160	Same as above but with fewer concretions and higher proportion of silt
160-200	2.5Y 4/0 (dark gray) silt with fewer concretions

survey cutline northeast through Section 28 to its intersection with the pipeline clearcut, just south of the bayou dividing 10A. The crew cut a path eastward across the clearcut and proceeded along the south bank of the bayou to a survey cutline demarcating the western boundary of this parcel.

The crew discovered that this bayou also is divided into a double channel in Area 10A. Previous survey in 10A had been conducted only north of the northern subparallel channel. The crew crossed onto the mid-channel "island" and conducted a series of transects along the center of this low ridge. Transect 5 began at a survey cutline. T5 extended 80 m north-northeast (bearing 30 degrees). At T5 E80 began T6, which extended 120 m east-northeast (bearing 60 degrees). At T6 E120 began T7, which extended 180 m east (bearing 90 degrees) to approximately the eastern limit of Survey Area 10A. All shovel tests were negative. T6-7 skirted the south bank of the northern subparallel channel. No additional shovel tests were conducted in this locale, but no *Rangia* or cultural materials were observed during a visual reconnaissance along the banks of the southern subparallel channel.

Area 10B was surveyed on November 8 and 11, 1991. Access to this survey parcel was possible via an east-west footpath branching from the three-wheeler path in Area 7A'. The field crew tried to reach Area 10B on November 5 and 6, but inundation halted them 250 m east of the pipeline clearcut along the Section 28/29 boundary. The crew reached 10B on November 8 and flagged the survey parcel's western limit at approximately 400 m east of the Section 28/29 line. The crew conducted shovel tests along T1 for a distance of 340 m, on a bearing of 45/225 degrees. The westernmost 100 m of T1 skirted the south bank of the intermittent east-west channel, which flows to the northeast in this locality. The field crew repositioned 20 m closer to the channel from the eastern terminus of T1 and conducted shovel tests for 200 m to the southwest (bearing 225 degrees) on the parallel T2, until this transect intersected with the bayou-side inundation. Transect 2 skirted the south bank of the channel. All shovel tests were negative. The natural levee was inundated farther east.

Boring 14, reported by Britsch and Dunbar (1990:8, 18), was performed near the intersection of the Louisa Canal and the east-west channel. Unfortunately, it did not provide material for a C-14 date.

The crew was unable to reach the Louisa Canal. The intersection of the Louisa Canal and the south bank of the

east-west channel is near the centerline of the river diversion channel cut, an estimated 900 m east-northeast of the Section 28/29 line along the natural levee. Design width from the Old Channel baseline to the approved channel centerline is 500' (approximately 153 m), which would place the baseline about 750 m east-northeast of the Section 28/29 line. The survey cutline followed the Old Channel B/L along the western limit of Area 10A. The crew expected to find the survey cutline at the western limit of Area 10B as well, but if they did so, the cutline was not recognizable.

The field crew attempted to reach Area 10B north of the east-west channel on November 11, crossing the channel at a ford 85 m east of the Section 28/29 line. The crew followed the north bank of the channel east 155 m (a total of 240 m east of the section lane), where the natural levee was inundated. The crew then tried to reach the northern part of 10B by detouring farther north, without success. The east-west channel was impassible within Area 10B itself. The north bank remained inaccessible for the duration of the 1991-1992 fieldwork.

Survey of Area 7B

Pedestrian survey was conducted in Survey Area 7B between April 9 and 11, 1991. Auger testing was conducted here on December 13, 1991. Area 7B lies within Sections 43, 40, and 41, owned by the Levert Land Company. The area extends southeast from the east side of the Willowdale ring levee to the Garland Canal.

The shovel testing regime began north of the unnamed distributary channel which forms the axis of this parcel. Transects 1-4 covered the width of the northern levee, from the 7A/7B interdistributary swamp to the channel, at the western end of the parcel by the ring levee. T1, the northernmost transect, and T2 began at the eastern termini of transects 1 and 2 in Area 7A, flagged on April 4. The new T1 began at T2 E920 in 7A and the new T2 began at T1 E920 in 7A.

T1 skirts the southwestern edge of the 7A/7B swamp, and T4 skirts the northern edge of the 7B channel. Transect 4 intersected the channel at E320. The transects followed a bearing of 120 degrees to E700, where the bearing was altered to 110 degrees to follow the channel's slight bend to the north.

The transects intersect a mudbuggy track running roughly north-south at E250 (see discussion of Area 7A, above). T1 intersects the Garland Canal at E840, as does T3

at E870. The canal here follows a course to the south-southeast. The width of the natural levee slowly narrows in 7B from Willowdale to the Garland Canal, but the levee ridge is firm and well-drained. Many large oak trees and stumps of oaks were noted in 7B north of the channel.

The crew crossed the 7B channel on the spoil bank thrown up from the Garland Canal and established a new set of transect lanes on the natural levee south of the channel. Transects 5-7 began on the west bank of the canal. The natural levee is about 70 m wide at this location. For clarity, positions along the transects were converted to distances east of the Willowdale levee. T5-7 began at E880-900. The initial bearing was 290 degrees. The bearing was altered to 300 degrees at E700. The transects intersected the mudbuggy track at E390-400. A diffuse scatter of *Rangia* was noted along the track across the full width of the levee. Because the levee generally widens west of E400, that end of the ridge was completed by transects 5A-9A. T5A-8A bracket the alignments of T5-7. T9A is 20 m farther southwest. T5A skirts the southwest edge of the 7B channel, while T9A skirts the northeastern edge of the 7B/7C interdistributary swamp. Numerous large oak trees were noted in 7B south of the channel, as was the case in 7B north. All shovel tests in 7B were negative. Auger tests conducted in Area 7B will be discussed with those in Area 7C (below).

Transect 9A intersects the ring levee opposite a low mound (a modern landscaping feature?) in the northeastern corner of the Willowdale golf course. *Rangia* fragments in small amounts were noted 40-60 cm below ground surface at this locale, where the drainage ditch inside and parallel to the ring levee cuts the eastern side of the mound. The occurrence is about 15 m north of the intersection of the levee-side ditch with a drain pipe. No cultural material or midden soil was identified with the *Rangia*. It is unclear whether the shell represents an in situ deposit or is a modern contaminant. The crew was not authorized to conduct subsurface testing on this property which is inside the Willowdale ring levee and will not be impacted by construction.

Small amounts of *Rangia* were noted at scattered locations along the top of the ring levee around the eastern end of the Willowdale golf course and subdivision. No in situ shell exposures in the parallel drainage ditch or in subsoil testing in adjacent survey areas were found in association with *Rangia* atop the ring levee. These isolated occurrences may represent modern contaminants from construction activities or from vehicular use of the levee-

top trail. Prehistoric sherds have been found within the area of the Willowdale golf course (Mike Comardelle and John Polk, personal communication) but no prehistoric sites or artifacts were identified in or near the golf course during the 1991-92 fieldwork.

Survey of Area 7C

Pedestrian survey was conducted in Survey Area 7C from April 11 to June 10, 1991. Auger testing was conducted here on December 13, 1991. Area 7C lies within Section 40, owned by the Levert Land Company. The area extends east-southeast from the east side of the Willowdale ring levee to the Section 40/41 and Section 40/3 boundary lines. The latter (posted) boundary marks the northern property line of the Rathborne Land Company. Right-of-entry to the Rathborne property had not been obtained at the time shovel testing was performed in 7C.

The shovel testing regime began north of the Bayou des Saules channel, which forms the axis of this parcel. Transects 1-3 covered the width of the natural levee north of the channel. T1 skirts the southwestern edge of the 7B/7C interdistributary swamp and T2 skirts the northern edge of Bayou des Saules. T3 intersected the edge of the bayou at E120. The well-drained levee ridge in 7C-north is only about 20 m wide. The initial transect bearing in 7C-north was 100 degrees. The bearing was altered to 110 degrees at E600 because of a slight southward bend in the channel.

Transect 1 intersected the mudbuggy track (see discussion of this feature under "Area 7A," above) at E470, as did T2 at E490. The track here runs from north-northwest to south-southeast. *Rangia* were scattered along the course of the track across the natural levee, with greater numbers near the edges of the swamp and the bayou. A scatter of very small whole *Rangia* shells (2 mm and greater in length) was noted in a rutted track at the edge of the bayou, 10 m south of T2 at E480. These well-preserved, immature *Rangia* probably are of recent biological origin. A small scatter of *Rangia* and oyster shell fragments, with a scallop shell 1 cm wide, were noted in a rutted sidetrack at T1 E460. The saltwater species probably adhered to a mudbuggy when it was employed in an estuarine environment. No cultural materials were encountered in the vicinity of the mudbuggy track.

Transects 1 and 2 were terminated at E840, the approximate location of the 40/41 section line. No survey markers were observed in this vicinity; both of these sections are owned by the Levert Land Company. The natural

levee is only about 30 m wide in this area. Bayou des Saules was too deep to cross here or elsewhere in 7C.

The absence of cypress trees in the center of the bayou suggests that the present bottom of the channel is deeper than those in 7A and 7B. It is unclear whether this is due to greater subsidence in 7C than in 7A and 7B or whether the 7A and 7B channels have been subjected to higher rates of channel infilling since their abandonment. The Garland Canal and other historic drainage canals intersecting the courses of the 7A and 7B channels may transport a higher sediment load into those systems, but seem inadequate to produce a markedly higher rate of sedimentary deposition there than in the 7C (Bayou des Saules) channel.

The natural levee south of Bayou des Saules is about 55 cm wide by the Willowdale levee, about 40-45 m wide at E700, and 45 m wide at E840. Transects 4-6 covered the width of this levee. T4 skirted the south side of the channel, while T6 skirted the edge of the Bayou des Saules/Bayou Bois Piquant interdistributary swamp. T6 intersected the edge of swamp at E20. T5 skirted the edge of the swamp from about E120 to E400, east of which the levee widens slightly. The initial transect bearing was 100 degrees. The bearing was altered to 110 degrees at E520 because of a slight southward bend in the channel. A rutted forest road was located along the ridge of the natural levee in 7C-south, and scattered *Rangia* found in and near this route probably are modern contaminants introduced by vehicles using the road.

A single *Rangia* shell was noted in the rutted road at T5 E0 (at the edge of the levee-side brush by the ring levee, about 10 cm east of the foot of the levee). T5 intersects the east-west forest road again at E70. Mudbuggy tracks mark the road for most of its length. The tracks lead southwest into the interdistributary swamp at E50, whereas the road leading west to Willowdale is largely overgrown. *Rangia* is scattered about 250 m eastward from here along the forest track. The road splits at E210; the less rutted, perhaps older course, continues east at bearing 100 degrees. An isolated *Rangia* fragment was noted along that route by T5 E240. The other, more heavily used, route bears to the east-northeast from E210. Scattered *Rangia* was noted along this main track, rutted by mudbuggies, to about E240. No artifacts were recovered in shovel tests in this area during survey. Additional shovel tests were excavated at a later date, and these were also sterile (below).

A narrow low ridge extends to the west-southwest (bearing 240 degrees) from the Bayou des Saules levee into the interdistributary swamp. This arm of the levee was

covered by shovel tests on T6 at E420-560, T7 at E460-480, T8 at E420-480, and T9 at E420-440. South of T9, the small ridge was too inundated to allow shovel testing. However, the ridge was followed for a distance of 320 m (bearing 240 degrees) from T9 E420, beyond which inundation made the route impassible. This minor distributary arm is so small that it is not represented in the geological or topographical maps of the region. This terrain feature probably is too small to have had substantial cultural significance at any time. The severely inundated southwestern end of this minor ridge probably crosses the alignment of the western guide levee. The COE design memorandum photo mosaics show that the terminus of this marginally discernable ridge is close to the junction of the ring levee's eastern extension and the western guide levee.

Transect 4 intersected the north-south mudbuggy track (see 7A, above) at E518. Only a few *Rangia* fragments were noted on this track, at the edge of the bayou and near the center of the levee ridge. The mudbuggy track joins the east-west levee top road at E530. The combined track enters the interdistributary swamp at E570, 30 m south of T5. Only a smaller path continues east along the natural levee from the mudbuggy crossing. Transects 4 and 5 terminated at E840. At E855 a metal sign by the path marked the boundary of the Rathborne property.

On June 10 the field crew returned to Area 7C to conduct additional shovel tests in the areas of *Rangia* scatter noted on April 11 and 12. In 7C-north they were unable to relocate the *Rangia* scatters along the mudbuggy track. Water was higher than on the earlier dates, and the shell may have been swept away or covered by a thin layer of sediment during the intervening period. A shovel test was placed at the intersection of the main track and a secondary track leading into the bayou, and at bracketed positions 10 m east, west, and south, as well as 20 m south of that central shovel test. All of these were negative; they revealed stiff clays to a depth of 30 cm.

In 7C-south the datum for an expanded series of shovel tests was placed in the center of the east-west levee-top road/mudbuggy track at the end of a massive oak root, 5 m east of the junction of the overgrown road from the ring levee with the mudbuggy track. Shovel tests were placed to the east and west of datum in or along the road at 20 m intervals. At E40, the bearing was altered from 90 to 110 degrees, and at E120 it was altered from 110 to 90 degrees, to follow the bending road. Shovel tests were performed every 20 m from W20 to E160. Twelve bracketing shovel tests were placed to the north and south of the original tests at

W20 N10, W20 N20, E0 N10, E0 N20, E0 S10, E20 N10, E20 S10, E40 S10, E140 N10, E140 S10, and also at N0 W10 and N0 E10. All shovel tests were negative. Soils were clays with only a slight admixture of silt. *Less Rangia* was observed on the ground surface than had been noted on April 12, probably due to the high water levels during the intervening weeks.

Auger tests were conducted in Areas 7B and 7C on December 13. These tests followed the western guide levee construction corridor (shown in Figure 2 as paired dotted lines), here running parallel to the eastern side of the Willowdale ring levee at bearing 195 degrees. All of the auger tests in 7B and 7C were placed 100 m east of the ring levee. The auger test numbers were enumerated in sequence through Areas 7A to 7C. Auger tests 13-18 east of Willowdale were placed at 50 m intervals where possible, but the narrow width of the distributary ridges necessitated the placement of some tests at irregular intervals. The field crew was repeatedly forced to return to the ring levee and reposition themselves along that structure when detouring around the impassible distributary channels and interdistributary swamps. The mapped length of the ring levee's east side is 2364', approximately 723 m.

Auger test 13 was placed east of the northeastern corner of the Willowdale ring levee, near the northern edge of Area 7B north. AT14 was placed 50 m south (195 degrees) of AT13 in 7B-north. The northern edge of the 7B channel was at S80. AT15 was placed at S250, in Area 7B south of the channel. AT16 was placed at S300 in 7B south. The northern edge of the 7B/7C swamp was at S340. AT17 was placed at S510 in Area 7C-north. AT18 was placed at S565 in 7C-south. The narrow natural levees in Area 7C provided space only for a single auger test on each side of the 7C channel (Bayou des Saules), and these tests were placed roughly in the center of the levee ridges. All auger tests were negative. The guide levee alignment traverses permanently inundated swamp forest south and southeast of Area 7C.

Table 24 summarizes the stratigraphy in the auger tests in Areas 7B and 7C. Auger tests 13-18 in Area 7B all exhibit a general gradation from finer to coarser soil particle size with increasing depth, from silty clays at the surface through clayey silts to silts or fine sandy silts. The silty clays are characteristic to a depth of 40-60 cm. Clayey silts below this depth exhibit extensive mottling. In 7B-north a fine sandy silt was recorded below 160-180 cm in AT13-14. In 7B-south a relatively uniform silt with no mottling was recorded below 180 cm in AT 15-16. In 7C-north AT17 exhibited silt below 160 cm; in 7C-south AT18 exhibited

Table 24. Auger Test Stratigraphy in Areas 7B and 7C.

Area 7B, Auger Test No. 13 (12/13/91), S 0

0-40 cm	2.5Y 3/2 (very dark grayish brown) silty clay
40-60	5Y 5/1 (gray) silty clay with 10YR 4/6 (dark yellowish brown) and 2.5Y 2/0 (black) mottling
60-140	Mixed 5Y 5/1 (gray) and 5Y 5/2 (olive gray) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
140-160	5Y 5/2 (olive gray) silt with 10YR 4/6 (dark yellowish brown) mottling
160-200	5Y 5/2 (olive gray) silt with some fine sand and 10YR 4/6 (dark yellowish brown) mottling

Area 7B, Auger Test No. 14 12/13/91, S 50

0-40 cm	2.5Y 3/2 (very dark grayish brown) silty clay
40-60	2.5Y 3/2 (very dark grayish brown) clayey silt
60-80	2.5Y 4/2-3/2 (dark grayish brown-very dark grayish brown) slightly clayey silt with 10YR 4/6 (dark yellowish brown) mottling
80-140	2.5Y 4/2 (dark grayish brown) silt with 10YR 4/6 (dark yellowish brown) mottling
140-160	Same as above but with the addition of 2.5Y 2/0 (black) mottling
180-200	2.5Y 4/2 (dark grayish brown) silt with fine sand and 10YR 4/6 (dark yellowish brown) mottling

Area 7B Auger Test No. 15 (12/13/91), S250

0-40 cm	2.5Y 3/2 (very dark grayish brown) silty clay
40-60	2.5Y 3/2 (very dark grayish brown) silty clay mixed with 2.5Y 4/2 (dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
60-80	2.5Y 4/2 (dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
60-80	Same as above but with some 2.5Y 2/0 (black) mottling and higher silt content

Table 24 (continued). Auger Test Stratigraphy in Areas 7B and 7C.

80-160	2.5Y 4/2 (dark grayish brown) silt with 10YR 4/6 (dark yellowish brown) mottling
160-180	Same as above but with some 2.5Y 2/0 (black) mottling
180-220	Same as 80-160 cm

Area 7B Auger Test No. 16 (12/13/91), S 300

0-40 cm	2.5Y 3/2 (very dark grayish brown) silty clay
40-80	2.5Y 4/2 (dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
80-120	Same as above but with some 2.5Y 2/0 (black) mottling
120-160	2.5Y 4/2 (dark grayish brown) silt
160-180	2.5Y 4/2 (dark grayish brown) silt with 10YR 4/6 (dark yellowish brown) and 2.5Y 2/0 (black) mottling
180-220	2.5Y 4/2 (dark grayish brown) silt with 10YR 4/6 (dark yellowish brown) mottling

Area 7C Auger Test No. 17 (12/13/91), S 510

0-20 cm	2.5Y 3/2 (very dark grayish brown) silty clay
20-40	2.5Y 5/0 (gray) silty clay with 10YR 4/6 (dark yellowish brown) mottling
40-100	2.5Y 4/2 (dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) and 2.5Y 2/0 (black) mottling
100-160	2.5Y 4/2 (dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) mottling
160-180	Same as above but pure silt
180-220	2.5Y 4/2 (dark grayish brown) mixed with 10YR 4/6 (dark yellowish brown) silt

Table 24 (continued). Auger Test Stratigraphy in Areas 7B and 7C.

Area 7C Auger Test No. 18 (12/13/91), S 565

0-20 cm	2.5Y 3/2 (very dark grayish brown) silty clay
20-40	5Y 5/1 (gray) mixed with 10YR 4/6 (dark yellowish brown) clayey silt
40-100	5Y 5/1 (gray) with 10YR 4/6 (dark yellowish brown) and 2.5Y 2/0 (black) mottling
120-140	2.5Y 5/2 (grayish brown) fine sandy silt with 10YR 4/6 (dark yellowish brown) mottling
140-220	same as above but also with 2.5Y 2/0 (black) mottling

fine sandy silt below 120 cm. In this vicinity the unnamed 7B channel possesses a wider and better-drained natural levee than does the 7C channel (Bayou des Saules), but no dramatic differences in depositional history are indicated by the short stratigraphic columns provided by these auger tests. Britsch and Dunbar (1990) identify both channels as distributaries of the Bayou Cypriere Longue system. The coarser-grained sediments at greater depths undoubtedly represent periods when the distributary channels were active.

Survey of Area 7C'

Pedestrian survey was conducted in Survey Area 7C' on November 19 and 22, 1991. Area 7C' lies within Section 3, owned by the Rathborne Land Company. The area extends southeast from the Section 40/3 boundary line to the head of the diverging channels in the east half of Section 3, shown on the USGS quadrangle (Figure 6). This was an area selected for survey in order to obtain additional confirming evidence of the apparent low site density.

The field crew followed the path south of Bayou des Saules 1550 m east of the Willowdale ring levee, to an impassible channel blocking further travel. This channel runs southwest to northeast. It is not shown on the USGS quadrangle but is depicted on property maps of the region. The heads of the diverging Bayou des Saules channels are only a short distance southeast of this location; the intended eastern limit of Survey Area 7C' would have been about 150 m farther along the bayou.

The natural levee at the barrier channel in 7C' is about 70 m wide, from the south bank of the Bayou des Saules/Bayou Bois Piquant interdistributary swamp. That width reflects the deposition of material from the channel cutting across the levee. The natural levee of Bayou des Saules in 7C' is generally less than 40 m wide. Three transects were conducted northwest (bearing 315 degrees) of the channel. Transect 1, closest to the bayou, intersected with an inundated area just west of W0. T3 intersected with inundation just west of W20. Shovel tests were conducted on T2 as far as W200, beyond which the inundation near a small north-south channel crossing the levee made shovel testing impossible. All shovel tests were negative.

A small mound of earth was noted at W0 between T1 and T2. A judgmental shovel test was placed in the mound, but was negative. The mound may be an artificial feature associated with the channel, perhaps an artifact of channel deepening. About 5 m south of the mound is a severely

rusted, 55-gallon steel drum. Other modern trash, including beer cans, is scattered in this vicinity. One oyster shell was noted on the path near the steel drum. One cork-top bottle was noted at W40 between T1 and T2. The bottle (probably a whiskey flask), beer cans, and miscellaneous trash near the canal reflect the modern recreational use of this parcel.

No further shovel testing was conducted in Area 7C' south of the bayou. No cultural material was observed during the visual reconnaissance conducted from the eastern end of Area 7C to the western limit of shovel testing in Area 7C', a distance of about 500 m. The field crew was unable to cross the bayou to the northern portion of 7C'. The natural levee at the eastern end of Area 7C-north was only 30 m wide and progressively narrows eastward from that locale, at E480. Property maps of the region indicate that the small slough or channel cutting across the levee in 7C'-south cuts through the natural levee north of Bayou des Saules about 240 m farther east, i.e. ca. E1080. The crew therefore did not attempt to access the north bank of the bayou through area 7C-north.

Survey of the Upper Segment of Area 8 and Reconnaissance of the Cypriere Longue Jeep Trail

Pedestrian survey and auger testing were conducted in Survey Area 8 between June 26, 1991, and February 21, 1992. A crew of three people generally was employed during this fieldwork. The alignment of the western guide levee for the ponding area (represented by the paired dotted lines on Figures 2 and 5) lies almost entirely within permanently inundated cypress swamp and marshland southeast of the Willowdale subdivision. The proposed fieldwork coverage therefore largely followed the course of Bayou Bois Piquant, which runs roughly parallel to the construction corridor in this region. Bayou Bois Piquant lies west of the guide levee from Willowdale to the levee's intersection with the bayou about 450 m (approximately 1450') north of the Cypress Lumber Canal. Only a short segment of Bayou Bois Piquant immediately north of the Cypress Lumber Canal is located to the east of the guide levee alignment.

Pedestrian survey proved impossible along some parts of the Bayou Bois Piquant channel due to inundation. The course of the bayou was surveyed in discontinuous parcels accessed overland from the north or by boat from the south. The portions of Area 8 in which archeological fieldwork was conducted lie in sections 4, 3, 10, 15, and 14 owned by the Rathborne Land Company and in Section 44 and the undivided portion of Township 14S, Range 21E east of Section 44,

within the Salvador Wildlife Management Area. Areas that were not inundated and that were successfully surveyed are shown in Figures 6 and 9. Coverage of the primary segments of Area 8 are described in geographical order from north to south rather than by chronology of fieldwork.

The initial reconnaissance of Bayou Bois Piquant was undertaken on June 26. The crew parked near the head of the channelized bayou at Willowdale Subdivision and walked along the top of the modern artificial levee flanking Bayou Bois Piquant in Sections 3 and 4, and along a trail following the north bank of the bayou within this enclosed terrain.

Isolated *Rangia* shells or fragments were noted along both the raised levee and the forest trail for several hundred meters east of the subdivision. These may be modern contaminants brought in on vehicles. Additional *Rangia* were found at a mudbuggy track crossing the levee about 1600 m east of the subdivision. This track probably is an extension of the mudbuggy track crossing Survey Areas 7A-7C east of Willowdale (see Area 7A, above). The *Rangia* here probably are contaminants introduced by mudbuggies. The crew also followed the path north of the bayou eastward beyond the end of the modern levee, about 1300 m east of Willowdale. Inundation was severe in this area and the north bank of the bayou became impassible 430 m east of the modern levee. The south bank of the bayou was impassible by 225 m east of the levee.

The field crew returned to the upper segment of Bayou Bois Piquant on November 6. They were halted by a two-meter wide, flooded ditch which crossed the north bank of the bayou ca. 190-195 m east of the modern levee. The ditch crosses the bayou, and marked the earlier terminus of coverage on the south bank. This unmapped ditch may connect with the deep channel at the eastern end of Area 7C' 500-600 m to the northeast.

The crew returned to this portion of Area 8 on Bayou Bois Piquant on November 19, when they succeeded in following the north bank of the bayou to a modern jeep trail crossing the bayou in Section 10. This trail follows a slightly raised road embankment which runs eastward from a major jeep trail by Bayou Cypriere Longue to a mapped drill hole in the northeast quarter of the section (Figure 2). The crew followed the jeep trail east to the location of the drill hole. A small building (serving as a hunting camp) now occupies this locale. The structure was brought in over the roadway or built at this spot after the jeep road had been constructed to the drill hole. No historic material was present at this locale. The western guide levee

alignment crosses the jeep trail just west of the hunting camp. The crew followed the jeep trail west to the Bayou Cypriere Longue trail and the Cypriere Longue trail north to Willowdale. No subsurface tests were conducted in the upper segment of Bayou Bois Piquant due to extensive inundation.

At no time was it possible to follow the severely subsided course of Bayou Bois Piquant between the jeep trail in Section 10 and the confluence of Bayou Bois Piquant and Cypriere Longue in Section 44. The Cypriere Longue distributary levees are much higher, wider, and better drained than those along the upper segment of Bayou Bois Piquant. Although the channel below this confluence bears the name of Bois Piquant, its primary source of discharge at present is Bayou Cypriere Longue. A shovel testing regime was not implemented along Bayou Cypriere Longue because of its distance from the guide levee alignment, except near the bayou confluence. The *Rangia* scatters observed during visual reconnaissance along the major jeep trail suggest that the Cypriere Longue levees have long been the foci of occupation in this region.

The crew conducted reconnaissance level fieldwork along the Cypriere Longue distributary between February 7 and 21, 1992. A diffuse scatter of historic sherds, glass, and fragments of coal were noted along the jeep trail parallel to the bayou, extending 730 m north and 500 m south from the western end of the drill hole access road. Several oyster shell middens and low mounds of coal and slag were noted in the same area. These historical components exhibited a general correlation with drainage ditches leading into the bayou. The material may date from the period of cypress lumber exploitation in this area (ca. 1890-1915). About 750 m southeast from the drill hole road an extensive scatter of modern trash, and possibly some earlier twentieth-century material, was found near the mapped location of a house. That building was no longer present, and no structural remains were identified here. The jeep trail crosses the Bayou Cypriere Longue at this locale. Because this area was outside the project impact corridor and outside the ponding area and guide levees, no collections were made and no field maps were drawn.

A *Rangia* scatter, probably a prehistoric site, also was noted 850 m east of the entrance to the Cypriere Longue jeep trail south of Willowdale. Other isolated *Rangia* along the jeep trail may also represent prehistoric sites on this distributary. Again, these possible sites are located west of the western guide levee and will not be impacted by the proposed construction.

No subsurface testing was performed anywhere in this upper segment of Bayou Cypriere Longue and data were not collected for reporting these scatters as possible sites because they are outside the study area and are outside the construction corridor. The narrowing ridge of the Bayou Cypriere Longue distributary is protected by a low modern earth levee, which connects with that surrounding upper Bayou Bois Piquant. The end of the levee on Cypriere Longue lies a short distance northwest of the boundary of the Salvador Wildlife Management Area.

Subsurface testing was implemented near the bayou confluence in Section 44, within the Salvador Wildlife Management Area. The field crew reached the Louisiana Power and Light (LP&L) powerline just south of the confluence, but found the terrain impassible to the south. The crew crossed Bayou Bois Piquant on the jeep trail leading to an abandoned drill hole, east of the bayou in Section 44. The jeep trail runs along a low roadway embankment ca. 10 meters wide. The bayou banks south of the crossing were completely inundated. Oyster shells and scattered wooden beams and boards were noted on the west side of the bayou crossing, near the location of a structure shown on the quad map. These probably are modern refuse or structural debris. No historic material was observed at this locale.

Rangia were observed on the Cypriere Longue jeep trail west of the bayou crossing, near the bank of Bayou Bois Piquant. A datum was placed near the center of the observed distribution, and a series of shovel and auger tests and excavation units were conducted at this prehistoric site, later designated 16SC76, between February 7 and 14. The site is discussed in Chapter 9.

Survey of the Lower Segment of Area 8

Archeological survey of the lower segment of Bayou Bois Piquant south of the above-described bayou confluence was conducted between December 5 and 10, 1991. Access to this area was by small boat through the Cypress Lumber Canal. The crew disembarked at the intersection of the bayou and the canal. A poorly defined path on the west bank of the bayou indicates that hunters probably enter the area overland from the north, but the terrain was so flooded during the survey work that the field crew wore hipwaders at all times. Previous observations of the region during boat reconnaissance on December 10, 1990, and May 14, 1991, revealed prevailing inundation, so auger tests were substituted for shovel tests. Two series of auger tests were excavated parallel to the bayou channel. These tests followed the bend in the bayou's course just north of the

canal. Table 25 presents the stratigraphy observed in these tests.

Auger tests 1-15 were placed approximately 20 m west of the bayou, beginning 40 m north of the canal and continuing at 40 m intervals. Several of these tests encountered a sandy silt at depths between 180 and 240 cm. The relatively large particle size at these depths is associated with a period of active distributary discharge.

From the AT15 position (600 m from the canal), the crew paced the estimated distance to the western limit of the guide levee corridor (about 920 m from the canal, following the bayou). Inundation blocked movement farther upstream. A distance of about 900 m on the west side of Bayou Bois Piquant, from the impact corridor to the bayou confluence, thus remained inaccessible during the 1991-1992 fieldwork.

Auger tests 16-23 were placed east of the bayou, about 20 m from the channel. These tests were usually excavated at intervals of 100 m, but a number were placed at variable intervals to obtain data on local terrain features (waterways or elevated ridges). One such feature was a small distributary which flows east-northeast (bearing 75 degrees) from Bayou Bois Piquant into the open marshland northwest of Lake Cataouatche. This channel is too small to appear on the USGS quadrangle of the area, but it can be recognized in aerial photographs. Auger tests 19 and 20 were placed respectively on the south and north banks of this branching channel. The stratigraphy is not significantly different at these auger test locales. Tests were continued along the bayou course to AT23, 550 m from the canal.

The crew paced an additional 200 m upstream but inundation prevented them from reaching the guide levee corridor. They returned to higher ground at AT22. A distance of about 1000 m on the east side of the bayou, upstream to the bayou confluence, thus remained inaccessible during fieldwork.

From AT22 the crew established an additional line of auger tests (AT24-27) perpendicular to the course of the bayou, on a bearing of 195/15 degrees. AT24 was placed 10 m south of AT 22, near the edge of the bayou. Auger tests 25-27 were placed 10, 20, and 30 m north of AT22. The edge of the open marsh is about 25 m north of AT22 on bearing 15 degrees. The purpose of this last set of tests perpendicular to the bayou was to ascertain the depth of the buried Bois Piquant levee with increasing distance from the modern channel, and thus determine the edge of the buried

Table 25. Auger Test Stratigraphy for Area 8.

Bois Piquant Auger Test No. 1 (12/5/91)

0-25 cm	Marsh muck/humus
25-30	5Y 4/1 (dark gray) clayey silt
30-75	5Y 5/1 (gray) clay
75-100	5Y 5/1 (gray) clay with increasing proportion of silt and some 10YR 4/6 (dark yellowish brown) mottling
100-180	5Y 5/1 (gray) silt mixed with 10YR 4/6 (dark yellowish brown) clay, becoming sandy silt by 180 cm
180-200	10YR 4/2 (dark grayish brown) silty clay with 10YR 4/6 (dark yellowish brown) oxide mottling

Bois Piquant Auger Test No. 2 (12/5/91)

0-25 cm	marsh muck/humus
25-30	5Y 4/1 (dark gray) clayey silt
30-75	5Y 5/1 (gray) clay
75-100	5Y 5/1 (gray) clay with increasing proportion of silt and some 10YR 4/6 (dark yellowish brown) mottling
100-110	10YR 4/2 (dark grayish brown) silty clay with 10YR 4/6 (dark yellowish brown) oxide particles
200	5Y 4/1 or 5/1 (gray) silty clay

Bois Piquant Auger Test No. 3 (12/5/91)

0-25 cm	marsh muck
25-140	5Y 5/1 (gray) heavy clay, possible bone fragment at ca. 120-140 cm.
140-180	5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/4 (dark yellowish brown) mottling; wood fragments observed between 160 and 180 cm
180-200	5Y 4/1 (dark gray) clayey silt with increasing proportion of silt
200-220	10YR 4/3 (brown/dark brown) sandy clay

Bois Piquant Auger Test No. 4 (12/5/91), 40 m N. of Auger Test No. 3. (20 m W. or bayou)

0-25 cm	marsh muck
25-120	5Y 5/1 (gray) heavy clay; snail shell recovered between 100-120 cm
120-200	5Y 4/1 or 5/1 (gray) silty clay

Table 25 (continued). Auger Test Stratigraphy for Area 8.

200-220	10YR 4/3 (brown/dark brown) sandy clay
220-240	10YR 5/4 (yellowish brown) sandy silt

Bois Piquant Auger Test No. 5 (12/5/91), 40 m N. of Auger Test No. 4 at 335 degrees

0-25 cm	marsh muck
25-100	5Y 5/1 (gray) heavy clay
100-140	5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/4 (dark yellowish brown) mottling
140-180	10YR 4/3 (brown/dark brown) sandy clay
180-240	10YR 5/4 (yellowish brown) sandy silt

Bois Piquant Auger Test No. 6 (12/5/91), 40 m N. of Auger Test No. 5 at 312 degrees

0-20 cm	marsh muck
20-40	5Y 5/1 (gray) clay with abundant weed fragments
40-100	5Y 5/1 (gray) clay
100-120	5Y 4/1 or 5/1 (gray) silty clay to gray clayey silt
120-220	5Y 4/1 or 5/1 (gray) clayey silt (very dense)
220	10 YR 4/4 (dark yellowish brown) sandy silt

Bois Piquant Auger Test No. 7 12/5/91, 40 m N. of Auger Test No. 6, at bearing 315 degrees

0-20 cm	marsh muck
20-40	5Y 5/1 (gray) clay
40-100	5Y 5/1 (gray) clay
100-120	5Y 4/1 or 5/1 (gray) silty clay to clayey silt
120-240	5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/4 (dark yellowish brown) mottling
240	10YR 4/4 (dark yellowish brown) sandy silt (interpreted in field as top of natural levee)

Bois Piquant Auger Test No. 8 (12/5/91), 40 m N. of Auger Test No. 7 at 310 degrees

0-20 cm	Marsh muck
20-80	5Y 5/1 (gray) clay
80-200	5Y 4/1 or 5/1 (gray) clay to silty clay with 10YR 4/4 (dark yellowish brown) mottling

Table 25 (continued). Auger Test Stratigraphy for Area 8.

200-220	same as 80-200 but with increased amount of 10YR 4/4 (dark yellowish brown) mottling
220-240	10YR 4/4 (dark yellowish brown) sandy silt; some 10YR 5/4 (yellowish brown) sand at 240 cm

Bois Piquant Auger Test No. 9 (12/5/91), 40 m W. of Auger Test No. 8 at 290 degrees

0-20 cm	Marsh muck
20-80	5Y 5/1 (gray) clay
80-200	5Y 4/1 or 5/1 (gray) clay to silty clay with 10YR 4/4 (dark yellowish brown) mottling
200-240	5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/4 (dark yellowish brown) mottling

Bois Piquant Auger Test No. 10 (12/5/91), 40 m W. of Auger Test No. 9 at 275 degrees

0-20 cm	Marsh muck
20-100	5Y 5/1 (gray) clay
100-240	Dense 5Y 4/1 or 5/1 (gray) silty clay with abundant 10YR 4/4 (dark yellowish brown) mottling

Bois Piquant Auger Test No. 11 (12/5/91), 40 m W. of Auger Test No. 10 at 275 degrees

0-20 cm	Marsh muck
20-60	5Y 5/1 (gray) clay
60-100	Dense 5Y 4/1 or 5/1 (gray) silty clay with abundant 10YR 4/4 (dark yellowish brown) mottling
100-180	very dense 5Y 4/1 or 5/1 (gray) silty clay with abundant 10YR 4/4 (dark yellowish brown) mottling as well as 10YR 3/3 (dark brown) mottling within the brown mottling

Bois Piquant Auger Test No. 12 (12/5/91), 40 m W. of Auger Test No. 11 at 285 degrees

0-20 cm	Marsh muck
20-60	5Y 5/1 (gray) clay to dense 5Y 4/1 or 5/1 (gray) silty clay; not as dense as Auger Test No. 11 (above)

Table 25 (continued). Auger Test Stratigraphy for Area 8.

60-240	Same matrix with 10YR 4/4 (dark yellowish brown) mottling
240	Large amount of 10YR 4/3 (brown/dark brown) silt at this depth

Bois Piquant Auger Test No. 13 (12/5/91), 40 m W of Auger Test No. 12 at 270 degrees

0-20	Marsh muck
20-80	5Y 5/1 (gray) clay
80-240	Dense 5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/4 (dark yellowish brown) mottling

Bois Piquant Auger Test No. 14 (12/9/91), 40 m E of Auger Test No. 13, bearing 275 degrees

0-220 cm	5Y 4/1 to 5/1 (gray) silty clay with some 10YR 4/4 (dark yellowish brown) mottling from 180 cm to 220 cm

Bois Piquant Auger Test No. 15 (12/9/91), 40 m E of Auger Test No. 14, bearing 255 degrees

0-60 cm	Marsh muck
60-220	5Y 5/1 (gray) clay with 10YR 4/4 (dark yellowish brown) mottling

Bois Piquant Auger Test No. 16 (12/10/91), 25 m NE of Bois Piquant/Canal confluence at 55 degrees (near a small slough about 2 m W of Auger Test No. 16)

0-50 cm	Marsh muck
50-120	2/5Y 4/0 (dark gray) clay
120-160	2.5Y 4/0 (dark gray) slightly silty clay
160-200	5Y 4/1 (dark gray) clayey silt with 10YR 4/4 (yellowish brown) mottling
200-220	5Y 4/1 (dark gray) clayey silt with slightly increased amounts of 10YR 4/4 (yellowish brown) mottling

Bois Piquant Auger Test No. 17 (12/10/91), 100 m further, following edge of levee

0-60 cm	Marsh muck
60-100	2.5Y 4/0 (dark gray) clay

Table 25 (continued). Auger Test Stratigraphy for Area 8.

100-140	2.5Y 4/0 (dark gray) clay, very thick, with 10YR 4/4 (dark yellowish brown) mottling; possible wood fragments and/or brown silt within clay matrix
140-180	Above becomes 5Y 4/1 or 5/1 (gray) silty clay
180-200	5Y 4/1 (dark gray) clayey silt (no mottling)
200-220	2.5Y 4/2 (dark grayish brown) silt

Bois Piquant Auger Test No. 18 (12/10/91), 100 m from Auger Test No. 17 along bayou, bearing ca. 330 degrees

0-50	Peaty marsh muck
50-80	2.5Y 4/0 (dark gray) clay
80-100	5Y 4/1 (dark gray) clayey silt
100-120	Compact 5Y 4/1 (dark gray) clayey silt with root material at ca. 100-120 cm
120-140	5Y 4/1 or 5/1 (gray) silty clay with a small amount of 10YR 4/4 (dark yellowish brown) mottling
140-160	5Y 4/1 or 5/1 (gray) silty clay with a small amount of 10YR 4/4 (dark yellowish brown) mottling; also wood fragments and root material
160-200	5Y 4/1 (dark gray) clayey silt with 10YR 4/4 (dark yellowish brown) mottling
200-220	10YR 4/2 (dark yellowish brown) silty clay

Bois Piquant Auger Test No. 19 (12/10/91), 10 m E from Bayou Bois Piquant, and 3 m S of branching channel

0-50 cm	Peaty marsh muck
50-80	2.5Y 4/0 (dark gray) clay
80-100	5Y 4/1 (dark gray) clayey silt
100-200	5Y 4/1 or 5/1 (gray) slightly silty clay with 10 YR 3/4 (dark yellowish brown) mottling which increases with depth
200-220	10YR 3/4 (dark yellowish brown) silty clay

Bois Piquant Auger Test No. 20 (12/10/91), across channel, ca. 20 m N of Auger Test No. 19

0-50 cm	Peaty marsh muck
50-80	2.5Y 4/0 (dark gray) clay
80-100	5Y 4/1 (dark gray) clayey silt

Table 25 (continued). Auger Test Stratigraphy for Area 8.

100-160	Clayey silt with 10YR 4/3 (brown/dark brown) mottling, increasing mottling with depth
160-180	Mottling decreases, gray clay increases
180-220	2.5Y 4/2 (dark grayish brown) slightly clayey silt, still with same brown mottling [Gen Note: on these auger tests, the density of the soil increases dramatically at ca. 120 cm]

Bois Piquant Auger Test No. 21 (12/10/91), 50 m N of Auger Test No. 20, at 290 degrees - At a live oak on a slightly higher patch of ground

0-40 cm	Marsh muck
40-80	5Y 5/1 (gray) clay
80-100	5Y 5/1 (gray) clay with 10YR 4/3 (brown/dark brown) mottling
100-140	2.5Y 4/4 (olive brown) silty clay mixed with gray clay
140-160	2.5Y 4/2 (dark grayish brown) silty clay
160-180	2.5Y 4/2 (dark grayish brown) silt with very small amount of clay
180-200	2.5Y 5/2 to 4/4 (color varies from grayish brown to olive brown) silt
200-220	10YR 4/3 (dark brown/brown) clayey silt

Bois Piquant Auger Test No. 22 (12/10/91), 100 m NW of Auger Test No. 21 at 310 degrees (intervening area is high ground; we are 20 m from a dead oak bearing 35 degrees)

0-40	Marsh muck
40-60	5Y 4/1 or 5/1 (gray) silty clay
60-80	Same gray silty clay but with 10YR 4/3 (brown/dark brown) silty mottling
80-100	10YR 5/2 (grayish brown) clayey silt; at 100 cm gets more compacted and harder to auger
100-120	10YR 5/2 (grayish brown) silt with 10YR 4/3 (dark brown/brown) and 10YR 3/4 (dark yellowish brown) mottling
120-140	2.5Y 4/2 (dark grayish brown) very silty (almost fine sand) softer matrix with 10YR 3/4 (dark yellowish brown) mottling
140-200	Similar to stratum above but more compact

Table 25 (continued). Auger Test Stratigraphy for Area 8.

200-220	10YR 4/2 (dark grayish brown) clayey silt with 7.5 YR 4/4 (brown/dark brown) and 7.5 YR 2/0 (black) mottling

Bois Piquant Auger Test No. 23 (12/10/91), 100 m W (270 degrees) of Auger Test No. 22 Lower ground, semi-inundated (ca. 5 cm of water)

0-60 cm	Marsh muck
60-100	5Y 4/1 (dark gray) clayey silt with wood fragments
100-180	5Y 3/1 (very dark gray) silty clay
180-200	5Y 3/1 (very dark gray) clayey silt with 2.5Y 4/4 (olive brown) mottling
200-220	5Y 3/1 (very dark gray) clayey silt mixed with abundant 10YR 4/3 (brown/ dark brown) clayey silt

Bois Piquant Auger Test No. 24 (12/10/91), 10 m S (205 degrees) of Auger Test No. 22

0-40 cm	Marsh muck
40-60	2.5Y 4/0 (dark gray) clay
60-100	2.5Y 4/0 (dark gray) clay with 10YR 4/4 (dark yellowish brown) mottling
100-160	5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/4 (dark yellowish brown) mottling
160-180	Increased silt content and increased brown mottling
180-230	2.5Y 4/2 (dark grayish brown) silt

Bois Piquant Auger Test No. 25 (12/10/91), 10 m N of Auger Test No. 22, bearing 15 degrees

0-30 cm	Marsh muck
30-80	2.5Y 4/0 (dark gray) clay
80-100	2.5Y 4/0 (dark gray) clay, slightly silty, with 10YR 4/4 (dark yellowish brown) mottling
100-120	2.5Y 4/0 (dark gray) silty clay
120-160	2.5Y 4/2 (dark grayish brown) clayey silt
160-180	2.5Y 4/2 (dark grayish brown) slightly clayey silt (with some fine sand)
180-200	Same as above but with less clay and more silt
200-220	2.5Y 4/2 (dark grayish brown) pure silt with 10YR 4/4 (dark yellowish brown) mottling

Table 25 (continued). Auger Test Stratigraphy for Area 8.

Bois Piquant Auger Test No. 26 (12/10/91), 10 m N of Auger Test No. 25

0-30 cm	Marsh muck
30-60	2.5Y 4/0 (dark gray) clay
60-100	2.5Y 4/0 (dark gray) clay with 10YR 4/4 (dark yellowish brown) mottling
100-120	5Y 5/1 to 4/1 (gray to dark gray) clay
120-160	5Y 5/1 to 5Y 4/1 (gray to dark gray) clay with small amount of 10YR 4/4 (dark yellowish brown) mottling
160-180	5Y 5/1 to 5Y 4/1 (gray to dark gray) clay with 10YR 4/4 (dark yellowish brown) mottling
180-220	5Y 5/1 to 5Y 4/1 (gray to dark gray) silty clay which with increasing depth becomes 2.5Y 4/2 (dark grayish brown) clayey silt; laminated with brown

Bois Piquant Auger Test No. 27 (12/10/91), 30 m N of Auger Test No. 22 (15 degrees) - partially inundated with water 10-15 cm deep

0-30 cm	Marsh muck
30-80	2.5Y 4/0 (dark gray) clay
80-100	5Y 4/1 or 5/1 (gray) silty clay with abundant charcoal, wood fragments
100-140	5Y 4/1 (dark gray) clayey silt
140-180	5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/4 (dark yellowish brown) mottling
180-200	5Y 4/1 or 5/1 (gray) silty clay with 10YR 4/6 and 10 YR 3/6 (dark yellowish brown) silt

landform. Auger tests 16-27 all encountered loose "marsh muck" to a depth of 30-60 cm. This was thinnest on the perpendicular line, with a depth of 40 cm at AT24 and AT22 and a depth of 30 cm at AT 25-27. A brown to grayish brown silt or silty clay, interpreted as the top of the levee, was encountered at depth 180-200 cm in AT 17-23. The top of the levee soil was not positively identified in AT 24-27, but almost pure silt was encountered at 180 cm depth in AT 24 and at 200 cm in AT 25.

The comparatively shallow silt encountered over 100 m from the bayou channel at AT 25 reflects the presence of a minor distributary ridge at this locale. The perpendicular auger test series thus affords subsurface profiles of that terrain feature but does not provide a generally applicable model for an idealized distributary cross-section. The width of the natural levee is generally much less along this segment of Bayou Bois Piquant than the distance traversed on the AT24-27 line.

The higher ground near AT22 represents the head of an inactive distributary channel of Bayou Bois Piquant. The relict levee ridge of this channel leads northwest of lake Cataouatche. The ridge extends as far as the Bridgeline Gas Company pipeline and the hypothetical course of a former Bayou des Saules distributary, where that channelized course intersects the pipeline. The attribution of this segment of relict channel to Bayou des Saules is problematic, as is its hypothesized extension southwards to the Pump Canal site (16SC27) by Britsch and Dunbar (1990). The relict channel immediately northeast of the Bayou Bois Piquant distributary ridge may be the subsided lower portion of that distributary rather than a southern extension of Bayou des Saules. The recognizable waterways south from this segment to the Cypress Lumber Canal follow trapper's trenasses and may have little relation to the earlier distributary systems in this Area.

Boring 11 U, reported by Britsch and Dunbar (1990:8,11,17,B2), was placed in the western natural levee of Bayou Bois Piquant just north of its intersection with the Cypress Lumber Canal. Peat encountered at depth 3.63-3.69 m yielded a C-14 date of 3,250 +/- 65 BP . Vibracore VC-12 was placed near the marshland flank of the bayou's western natural levee about 500 m south of the 11 U boring but did not yield material for radiocarbon dating (Britsch and Dunbar 1990:8,A8).

None of the auger tests in this segment of Bayou Bois Piquant yielded artifacts or shell, and no pre-modern cultural material was observed on the ground surface.

Bankline Survey in Areas 3, 4, and 9

Bankline boat survey was conducted in two discrete portions of the project area accessible only by water. Auger and shovel tests were placed along the south bank of the U.S. Highway 90 borrow trench and along the west bank of Bayou Verret on April 12 and 23, 1991. Shovel testing and bankline inspection were conducted on the north side of the Cypress Lumber Canal on May 14, 1991. Guide levees may be erected along all of these corridors.

The south bank of the highway borrow trench constitutes Survey Area 3 and the west bank of Bayou Verret constitutes Survey Area 4. The field crew placed auger tests at variable intervals, not exceeding 100 m. The crew also observed the bank for elevated terrain features or any exposure of cultural materials, and at these locations placed additional judgmental tests. No pre-modern cultural materials were observed, and the loose marshland soils made execution of the testing regime problematic. Many of the auger tests yielded only marsh peat or muck so wet and loose that it fell from the auger bit. Many of the auger tests along the borrow trench hit gray clay below the peat.

Brief field reconnaissance had been conducted previously by boat in the highway borrow trench on November 10, 1990, and by airboat in the open marshland south of the highway on January 7, 1991. The field crew began their systematic auger and shovel test regime in Survey Area 3 on April 12, starting at the western end of the borrow trench (locally known as the Deep Canal). The westernmost 150 m of the canal was choked with a dense mat of floating vegetation. Tests therefore were conducted eastward along the bank from E150 to E3500, the intersection of Deep Canal with Sellers Canal. As almost all of the tests encountered dense gray or blue-gray clay below marsh peat, only those tests which yielded strata potentially related to natural levee deposition are discussed below.

The unnamed east-west channel flowing through Area 10A intersects the Deep Canal in Section 39 (Figure 2). Auger tests at E750 and E800 west of the channel and at E900 and E950 east of the channel encountered dense blue-gray clay at ca. 20 cm. A 10YR 5/1 (gray) silty clay was encountered at 120 cm at E800; this probably represents the surface of the buried levee. Another set of tests in Section 38 may also indicate levee deposition. Dark, organics-rich clay was encountered at 100 cm in E1150, 30-80 cm in E1200, and 80-120 cm in E1300. In Section 37, about 150 m east of a navigable channel, black clay was encountered at 50-90 cm in

E1650. This is probably the small distributary ridge discernable between those in Areas 10A and 10B. In Section 37, near the eastern boundary, black clay was encountered at 50-70 cm in E2150. This is probably the ridge present in Area 10B. On the west bank of a navigable channel, black clay was encountered at 100-120 cm in E2250. Black organics-rich clay was encountered at 40-70 cm in E2900, about 200 m west of a partially demolished bridge to a drill hole in Section 4.

All of the shovel and auger tests conducted in Area 3 were negative. The levee soils encountered along the Deep Canal are too deeply buried to provide promising surface exposures. The natural levees intersecting the Deep Canal have been ascribed to distributary channels of the Bayou Verret System, active ca. 2500-2200 BP (Britsch and Dunbar 1990). Boring 22 was placed on the north side of the Deep Canal in Section 37 but did not yield material for radiocarbon dating (Britsch and Dunbar 1990:8,16).

Survey Area 4 consists of the west bank of Bayou Verret and of the Sellers Canal from the Highway 90 borrow trench to the channelized head of the bayou. Tests were conducted southward from the intersection of Deep and Sellers Canals to the head of the shoalwater bankline by Lake Cataouatche at S5300. The Sellers Canal-Bayou Verret channel provides an unimpeded access route to Lake Cataouatche from Highway 90 for small boats. *Rangia* were noted along the bankline at several locations, but appear to represent modern deposition, including shell fill used at hunting camps and at eroding bankline locales. Other *Rangia* surface scatters occur directly above marsh peat and may reflect recent biological introduction, including the harvesting of clams by raccoons. A large number of auger tests were in peat; in some spots the inundation of the bank was so severe that no tests could be executed. Tightly spaced tests were placed at promising locales. No artifacts were recovered in any tests or from the surface.

A wide channel at S575-600 is blocked at Sellers Canal by a water control gate. Oyster and *Rangia* shells, probably fill, are present here. Tests at S500, 525, 550, 625, 650, and 675 encountered 30 cm of clay spoil above peat. No buried ground surface was found, although this channel has been tentatively identified as part of the Bayou Verret distributary system by Britsch and Dunbar. At S1100 the channelized course of Bayou Verret turns east from the alignment of Sellers Canal; the old canal route farther south cannot be entered from the bayou at this bend in the channel.

At S1500, an old channel, presumably the original course of Bayou Verret, enters the waterway from the north. Vibracore VC-1 was placed just east of this old channel and yielded a series of four C-14 dates from 920 ± 70 BP to 2,730 ± 80 BP (Britsch and Dunbar 1990:8,16,A2,B2,C2). The head of Bayou Verret along this old channel lies northeast of and outside of the project area.

Remains of a derelict camp with a single collapsing structure were noted at S1550. Oyster and *Rangia* shell were present directly below the building but no subsurface shell was recovered in shovel tests here. No historic material was found here. Remains of another old camp (main structure burnt) were noted at S1600. No historic material was present. At S1900 a small channel leads southwest from Bayou Verret into the green marsh. Additional auger tests were placed along this channel to spoil banks blocking water flow about 300 m from the bayou. At S1950 the former opening of the small marshland channel has been blocked at Bayou Verret by a spoil bank. The surface of this spoil is covered by crushed oyster shell. Shovel and auger tests yielded no subsurface shell at this location.

At S2750 and S2900, small channels lead west into the marshland, connecting with a small east-west channel (probably a trenasse) in the center of Section 5. The auger tests encountered gray clay below marsh peat at 100 cm in S2750 and at 170 cm in S2900. A 7.5YR 5/0 (gray) silty clay, probably a buried levee surface, was encountered at 180 cm in S2925, and at 150 cm in S2950 and S2975. The auger tests encountered gray clay again at 220 cm in S3000, 210 cm in S3075, and at 180 cm in a judgmental test west of S3075. These levee soils are in the eastern half of Section 5. They presumably represent the buried western levee of Bayou Verret.

South of this set of auger tests, the augers yielded only marsh peat except where shallow deposits of spoil were present at the surface. Numerous small channels intersect the west bank of Bayou Verret between S2975 and S5050, where a short canal leads west to a drill hole. At S5300, where Bayou Verret widens about 400 m upstream from its mouth, the bankside margins of the channel became too shallow to permit boat access to the bayou bank. The last 400 m of shoalwater above the bayou's entrance in Lake Cataouatche therefore were inaccessible, but no surface shell or unusual terrain features were noted at this locale.

The mouth of Bayou Verret is flanked by borings 13U and LP-11. Boring 13U was placed on the north shore of Lake Cataouatche about 1000 m west of Bayou Verret's channel

centerline. Boring LP-11 was placed on the lakeshore at the mouth of Bayou Gaudin, about 350 m east of Bayou Verret's channel centerline. Boring 13U yielded a series of three C-14 dates from 600 ± 60 BP to 2,980 ± 80 BP (Britsch and Dunbar 1990:8,17,B2,C4). LP-11 was placed in the western levee of Bayou Gaudin, tentatively identified as a channel of the Bayou Verret distributary system. That boring did not provide material for radiocarbon dating.

All auger and shovel tests in Survey Area 4 were negative. No pre-modern cultural materials were observed during bankline inspection. The severely subsided banks of Bayou Verret, barely above the level of the bayou during the 1991-92 fieldwork, provide poor opportunities for exposure of early remains.

Survey Area 9 consists of the north bank of the Cypress Lumber Canal (also known locally as the North Canal because of its position along the northern boundary of the Netherlands Farm Tract) westward from its mouth at Lake Cataouatche to the northern end of the West Canal along the western boundary of the same tract. This area lies entirely within the Salvador Wildlife Management Area. The western guide levee (design width 225') will intersect the north side of the Cypress Lumber Canal about 100-166 m east of the West Canal. Breaks in the canal's northern spoil bank will be repaired, raising the artificial ridge to a design grade of 3.5' NGVD.

The field crew began its shovel testing regime at the western end of Area 9. Two crew members excavated shovel tests at 50 m intervals along the top of the spoil bank, while the third crew member examined the canal's northern bankline from the boat. The soils exposed in the initial shovel tests exhibited a mixture of 10YR 5/4 (yellowish brown) silty loam and 2.5Y 5/2 (grayish brown) clay. These soil types predominated in the western portion of Area 9 near Bayou Bois Piquant whereas gray clays were more common further east. These tests in displaced spoil served as indicators of the buried soil types rather than providing stratigraphic profiles. More silty soils were encountered from E600 to E750 west of the bayou and E800 to E1050 east of the bayou. The bayou channel intersects the canal at E780-800.

Artifacts, including bricks and other structural debris, were scattered along the spoil bank west of the bayou from E725-775. The material was exclusively twentieth century and appeared to be largely of 1940s-1950s vintage. No historic artifacts were identified. A slight amount of material also was found just east of the bayou. Nicholas

Schovest, Mike Comardelle's great uncle, maintained a camp on the west side of the bayou in the 1920s and 1930s. The slight elevation at that locale, therefore, is known as *La Butte de Oncle Nick*, or Uncle Nick's Hill. Flonnie Schouest lived on the east side of the bayou in the 1920s and 1930s, having moved there about 1928 (Mike Comardelle, personal communication 1992). This locale had been visited previously during the boat reconnaissance on December 10, 1990. The field crew performing auger tests on the adjacent levees of Bayou Bois Piquant on December 5-10, 1991 did not observe any historic material north of the spoil bank.

The Bois Piquant distributary ridge forms the highest portion of the canal spoil bank, roughly between stations 547+00 and 560+00 on the levee alignment. East of this ridge, the spoil bank is generally low and exhibits a number of breaks. A small channel cuts through the spoil bank at E1080-1100. A shovel test at E1100 exposed a mixture of clay and silt, predominantly silt in the top 10 cm. A shovel test at E1150 revealed dense clay. An auger test just north of the spoil bank at E1050 passed through bedded layers of peat and clay below the top 10 cm of humic material. These tests did not reveal any evidence for the hypothetical Bayou des Saules channel intersecting the canal near E1150 as postulated by Britsch and Dunbar (1990). An additional small channel cuts through the spoil bank at E1180-1200. A small trenasse cuts through the bank at E1300. This route leads northwest. An auger test here revealed mottled gray clay to 30 cm and solid blue-gray clay below that depth.

At E1400, two girder-like riveted iron beams extend under the spoil bank. Mike Comardelle recalled their being there since his boyhood, and suggested they date from the excavation of the canal. They probably are heavy machine parts abandoned at this locale. At E1580, an abandoned boat is jammed into a break in the spoil bank. Mike Comardelle remembered that it was placed there in the late 1950s. At E2350, another channel cut through the spoil bank. East of this channel, the spoil bank is largely inundated. At E2450-2500 is the northern end of the Pumpkin Canal, which formed the eastern boundary of the Netherlands Farm Tract. No historic artifacts were recovered at this locale, although Mike Comardelle stated that it was the site of a camp in the 1920s-1930s (Mike Comardelle, personal communication 1992).

A small channel cuts through the spoil bank at E2250. Here and at E2575, lines of willows extend 40-100 m north of the Cypress Lumber Canal, but tests recovered only bedded peat and clay. The nearest boring, 12U, was placed north of

the Cypress Lumber Canal a short distance northwest of Pumpkin Canal's northern end. This boring penetrated several meters of marsh and peat deposit (Britsch and Dunbar 1990:8,17,18,C4).

Between E2650 and 2820 were artifacts and structural debris associated with the Netherlands Hunting Club, also known locally as the Clubhouse. Although the USGS quadrangle shows several buildings at the eastern end of this locality by the mouth of the canal, no standing structures were present. Surface debris included oyster and *Rangia* shell, iron machinery parts, steel drums, tin cans, and fragments of modern bottle glass. The distribution of material is linear, following the canal bank. At E2680, milkglass, modern ceramics, and windowpane glass fragments were noted. Mike Comardelle (personal communication 1992) recalled that a houseboat was moored in this vicinity at one time. An old boat dock was noted at E2742; Comardelle recalled there was a winch on it. Brick fragments were present from E2775 to 2780, and the base of a chimney at E2785. Shovel tests were placed at 10 m intervals through the length of this artifact scatter from E2650 to 2810. These were positive from E2650 to E2790. A board barrier protects the lakeside end of the spoil bank from erosion at E2820.

Mike Comardelle (personal communication 1992) recalls that the largest of the buildings in the complex here, the clubhouse itself, was the easternmost of the interconnected structures. He estimates that the structure was about 40 X 50 ft, with the longer side fronting on the canal. West of the clubhouse were several shotgun-style structures, estimated dimensions 14 X 60 ft, with the shorter sides fronting on the canal. Secondary decks and outbuildings probably were added to the complex later. Diagnostic material recovered from the Clubhouse site, including that from subsurface contexts, was exclusively post-World War II. No historic artifacts were identified in the artifact assemblage. This locale therefore was not designated an archeological site. The only positive shovel tests executed in Survey Area 9 were within this apparently modern complex.

CHAPTER 9
SITES 16SC73, 16SC74, AND 16SC76

Introduction

Three archaeological sites were recorded during survey of the Davis Pond area. One of these (16SC73) is a scatter of late-nineteenth and early-twentieth century artifacts near the Mississippi River. 16SC74 is also an historic site beside the river, but artifacts there date to the eighteenth and early-nineteenth century. 16SC76 is a light scatter of *Rangia* shells which also yielded a single prehistoric sherd. Sufficient work was done on 16SC73 and 16SC76 to result in a recommendation that neither is significant in terms of NRHP criteria. Because 16SC74 was located outside the impact corridor, no excavations were conducted there. Its NRHP status therefore remains undetermined, and it should be considered potentially eligible for nomination to the National Register.

16SC73

Site Description. Site 16SC73 was discovered during pedestrian survey of open pasture in Area 2A. The site is located south of a multi-track railroad embankment of the Texas and Pacific Railroad, which at this location is parallel to and immediately adjacent to Louisiana Highway 18 (River Road).

The site was first recorded by a field crew digging shovel tests at 20 m intervals on parallel transect lanes 20 m apart. The orientation of these survey transects was 165°, perpendicular to the alignment of the railroad embankment. This compass bearing was maintained while mapping and testing the site. The result is that 345° is grid north on the site map (Figure 28).

The transect survey shovel test grid began at the barbed wire fence parallel to the railroad. The fence serves as the N0 reference. All surface material and positive shovel tests at the site were located between Transects 16 and 18. Transect 17 passed through the center of the site. T17 intersects the fence line just west of a north-south drainage ditch (bearing 172°) which empties northward through a steel culvert passing below the railroad embankment.

The site was initially recognized because of the presence of surface material in and near the banks ofthe drainage ditch. There was only one positive transect shovel test at the site. It yielded gravel (rounded water-tumbled

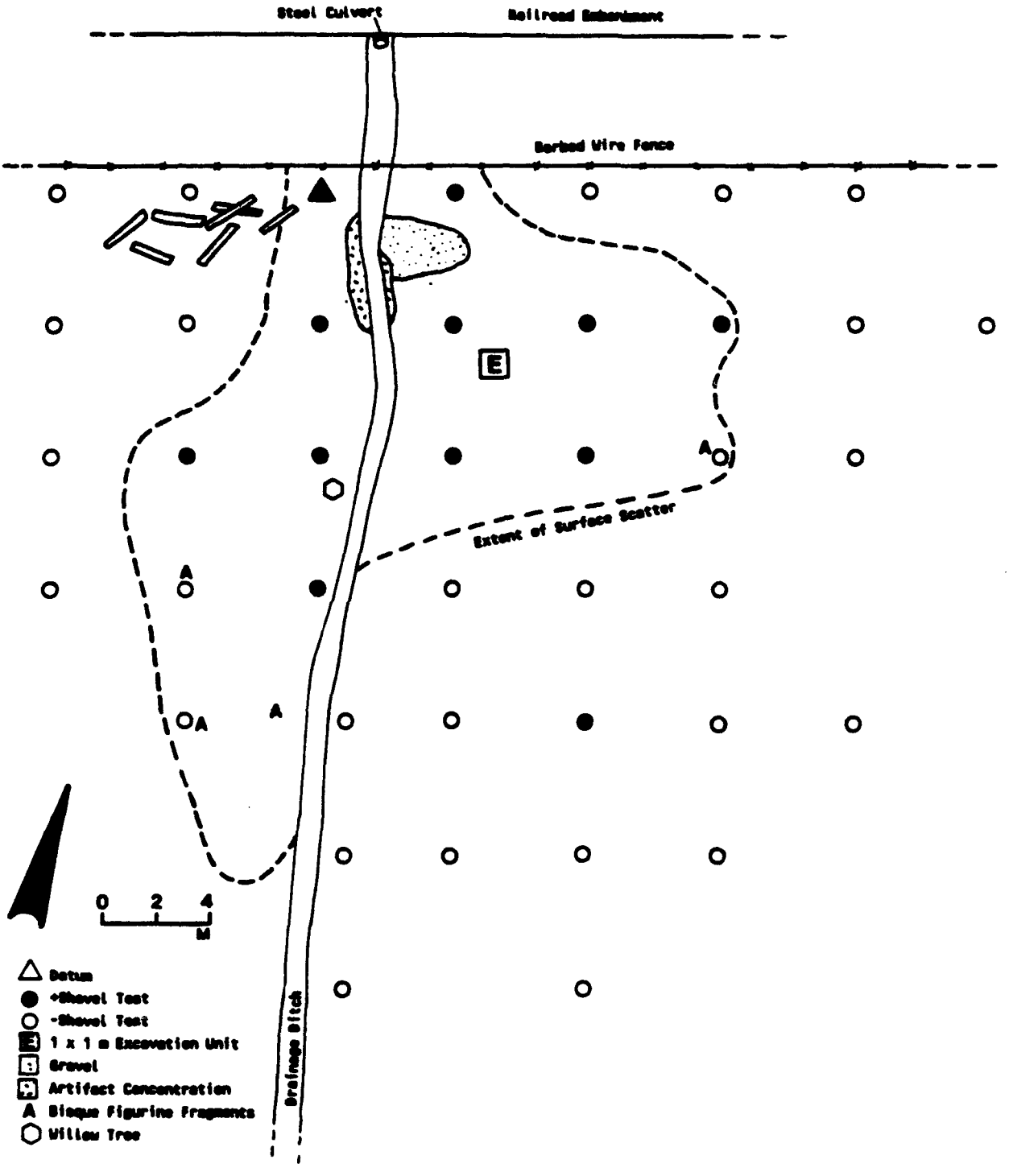


Figure 28. Site map of 16SC73.

pebbles) at a depth of 3-5 cm and minute brick fragments, smaller than the 1/4-inch screen mesh, to a depth of 10 cm. The gravel was associated with a small bed of gravel running parallel to the fence on the east side of the ditch, and concentrated 2-3 m south of the fence. This surface deposit represents a load of gravel hauled into the site, probably in recent years. A jumbled pile of railroad ties west of the ditch may also have been deposited in recent years. A small amount of crushed stone (probably railroad track ballast) and *Rangia* fragments also were scattered across the site.

The positive transect shovel test was designated site datum (N0 E0). Additional shovel tests were excavated at 10 m intervals between the T16-T18 shovel tests. Soil from these tests was removed and screened by arbitrary 10 cm levels. Figure 28 shows the pattern of positive and negative shovel tests. At S10 E0 brick fragments were recovered at 0-10 cm. At S10 E10 a brick fragment was recovered at 0-10 cm depth, two light green paneled flask fragments at 10-20 cm, and a plastic shotgun shell at 20-30 cm. At S20 E10 a fragment of plastic and a clear glass bottle top were recovered at 0-10 cm. After completion of this 10 m grid, diagnostic artifacts were collected from the surface. These included a large iron spike, an iron pipe, a fragment of a cast iron stove or machine part, and fragments of a bisque figurine.

At a later date, additional shovel tests were excavated at 5 m intervals between the previously completed tests covering the site area. These tests are also included on the map in Figure 28. The test at S5 E0 yielded small amounts of coal and oyster shell fragments at 0-10 cm depth; coal, oyster shell, brick fragments, and nail fragments in levels 2-4 (10-40 cm); and coal, iron, and glass at 40-50 cm. The test at S15 E0 yielded only one fragment of iron at 0-10 cm. The test at S10 W5 yielded one oyster shell fragment at 0-10 cm. The shovel test at S0 E5 yielded an iron fragment and a nail head at 10-20 cm. The shovel test at S5 E5 yielded iron fragments at 0-10 cm; a wire nail, gravel, and small oyster shell fragments at 10-20 cm; a wire nail, gravel, and coal at 20-30 cm; and small fragments of soft orange brick at 30-40 cm. The shovel test at S10 E5 yielded a clear glass fragment and an ironstone sherd at 0-10 cm and small fragments of soft orange brick at 20-30 cm and 30-40 cm. The shovel test at S5 E10 yielded a nail and milk glass at 10-20 cm and fragments of soft orange brick at 30-40 cm. The largest brick fragment was at 30-32 cm depth. The shovel test at S0 E15 yielded small fragments of coal and *Rangia* shell at 0-10 cm. These may actually represent surficial contamination. The shovel test at S5 E15 yielded

one fragment of clear bottle glass at 20-30 cm. A second collection was made of diagnostic glass and ceramics from the banks of the drainage ditch. These were located in the area of concentration about 2-6 m south of the fence line.

A 1 x 1 m unit was excavated in 10 cm levels at S6 E7. This unit was located 2.8 m east of the top of the bank beside the pasture drainage ditch. It was placed at this location in order to avoid the surficial contamination of gravel closer to the fence and the possible mixing of materials immediately adjacent to the ditch. The presence of brick fragments at varying depths between 10 and 40 cm in the shovel tests at S5 E0, S5 E5, S5 E10, and S10 E5 suggested that historic structural remains might be concentrated in this area southeast of site datum. Depths within the unit were relative to ground surface at the NE corner which served as unit datum. All of the soil was removed and screened through 1/4-inch mesh.

Level 1 (0-10 cm) yielded wire nails, amorphous metal fragments, fragments of clear glass, brown and green bottle glass, slag, oyster and *Rangia* shell fragments, and a fragment of glazed ceramic drainpipe. Some non-diagnostic material was not collected. Some of this material represented surficial contaminants. It consisted of crushed stone, gravel, two small fragments of coal, the torn bottom of an aluminum beer can, and fragments of clear plastic wrap.

Level 2 (10-20 cm) yielded small brick fragments, *Rangia* fragments, fragments of a clear glass bottle, and a nail fragment. Material not collected consisted of small amounts of crushed stone and gravel and three small fragments of coal. Level 3 (20-30 cm) yielded a number of small cinders and a few small pebbles (not saved). Level 4 (30-40 cm) yielded two small fragments of brick at a depth of 30-31 cm. Material not collected and that was recovered near the top of the level consisted of small pebbles and several small fragments of coal. Level 5 (40-50 cm) was sterile.

An Oakfield soil sampler was used at the center of the unit in order to record strata to a depth of 150 cm. No additional artifacts were encountered to that depth. After photographing and drawing wall profiles, the excavation unit was backfilled.

No features were present in the unit, nor were sharp stratigraphic breaks observed in the walls. The soils within the pasture, including the site area, are generally heavy clayey silts or silty clays exhibiting subtle

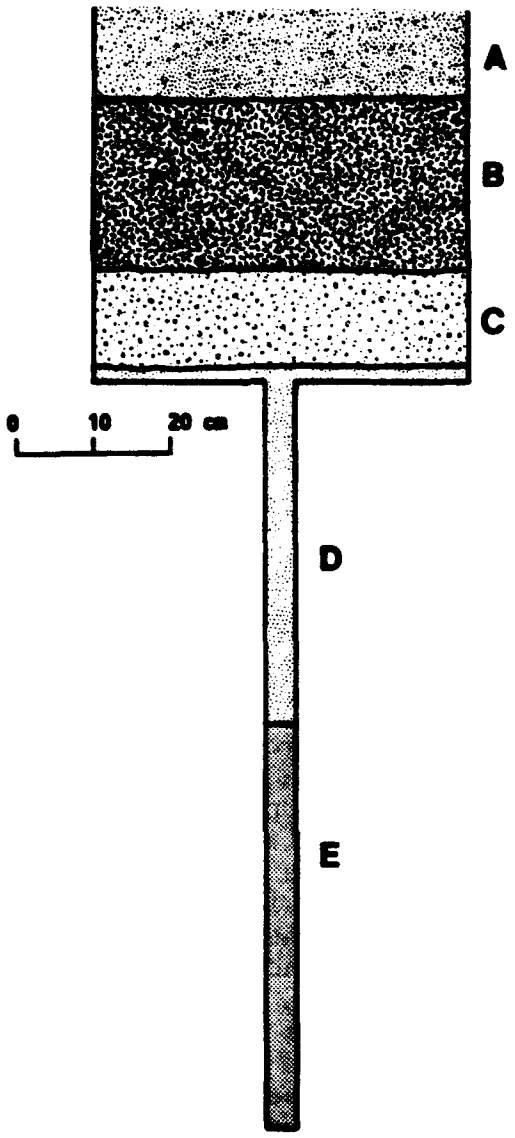
gradations in color and texture between natural strata. Figure 29 shows the profile of the unit at 16SC73. The discussion here also incorporates data obtained by using the soil sampler.

Stratum A within the 1 x 1 m unit (0-12 cm) consists of 10YR 3/2 (very dark grayish brown) compacted clayey silt topsoil with a dense root network. Stratum B (12-35 cm) is 2.5Y 3/2 (very dark grayish brown) friable clayey silt with numerous iron oxide stains. Stratum C (35-48 cm) is 10YR 4/3 (dark brown) damp clayey silt. Stratum D (48-96 cm) is 10YR 5/2 (grayish brown) plastic silty clay. Stratum E is a 2.5YR 5/2 (grayish brown) stiff gray clay, beginning at a depth of 96 cm and continuing at 150 cm. The Oakfield soil sampler had earlier been employed to core below the bottoms of selected shovel tests at the site, including S5 W10, S10 W10, S0 W5, S25 E1, S5 E10, and S15 E10. Plastic silty clay (Stratum D) was encountered at 55 cm below surface at S5 E10 and at 57 cm at S15 E10. Nowhere did the soil sampler encounter deeply buried cultural materials.

All cultural materials excavated at the site were recovered from Strata A-C. All artifacts recovered from the excavation unit, and the majority from shovel tests at the site, came from Strata A and B. Much of the cultural material found at shallow depths on the site is modern. Some of the less recent artifacts may have been scattered over a wider area due to the presence of the plantation ditch. Cattle now use that locale as a watering hole, and some artifacts churned in the mud probably are carried away from the spot on the cow's hooves.

Site boundaries (Figure 28) were defined on the basis of positive shovel tests and surface material. The elongated arm of the site west of the ditch may be caused by the result of relatively recent displacement of artifacts in that direction along a cow path following the ditch. The concentration of historic material by the drainage ditch in the center of the site may reflect refuse disposal along a field line. The date of the ditch itself is undetermined, but it roughly follows the old plantation field lines. Deepening of the ditch to expedite drainage through the steel culvert may have exposed previously buried material. No features were recorded anywhere on the site and only a very small number of brick fragments were recovered.

Artifacts. Artifacts recovered from 16SC73 are presented in Table 26. Many of the items appear to date from the twentieth century, and most if not all date no earlier than the late-nineteenth century. The presence of brick, although in small quantities, and of a relatively



Stratum A. 10YR 3/2 (Very dark grayish brown) compact clayey silt

Stratum B. 2.5Y 3/2 (Very dark grayish brown) clayey silt

Stratum C. 10YR 4/3 (Dark brown) damp clayey silt

Stratum D. 10YR 5/2 (Grayish brown) plastic silty clay

Stratum E. 2.5Y 5/2 (Grayish brown) stiff clay

Figure 29. Profile of a portion of the west wall, EU1, 16SC73.

Table 26. Artifacts from 16SC73.

S0 E5 (10-20 cm)
1 nail head
1 amorphous metal

S4 E1 (surface)
1 bisque doll or figurine head fragment

S5 E0 (surface)
1 porcelain

S5 E0 (10-20 cm)
1 square nail
1 amorphous metal
1 brick fragment

S5 E0 (20-30 cm)
1 unidentified nail

S5 E0 (30-40 cm)
2 brick
2 amorphous metal

S5 E0 (40-50 cm)
1 amorphous metal
1 brick fragment
1 light green glass
1 clear glass

S5 E5 (0-10 cm)
1 wire nail
1 wire
1 fence staple

S5 E5 (10-20 cm)
1 wire nail

S5 E5 (20-30 cm)
1 wire nail

S5 E5 (30-40 cm)
3 brick fragments

S5 E10 (10-20 cm)
1 milk glass
1 unidentifiable nail

S5 E10 (30-40 cm)
7 brick fragments

Table 26 (continued). Artifacts from 16SC73.

S5 E15 (20-30 cm)
1 clear glass

S10 E0 (surface)
1 ironstone

S10 E0 (0-10 cm)
1 brick fragment

S10 E5 (0-10 cm)
1 ironstone
1 clear glass

S10 E10 (0-10 cm)
1 brick

S10 E10 (10-20 cm)
2 light green paneled flask fragments

S15 E0 (0-10 cm)
1 sheet metal fragment

S20 W5 (surface)
1 bisque figurine fragment

S20 E0 (0-10 cm)
1 plastic (smoking) filter

S20 E10 (0-10 cm)
1 plastic
1 modern clear crown-cap soda bottle neck

S25 E15 (10-20 cm)
1 phonograph record fragment

S25 E15 (20-30 cm)
4 brick fragments

S25 E15 (30-40 cm)
1 brick fragment

Transect 5 S280
4 brick fragments

Transect 5 S360
3 brick fragments

Table 26 (continued). Artifacts from 16SC73.

Transect 7 S280
4 barbed wire fragments

EU1, Level 1 (0-10 cm)
1 brown glass
3 clear glass
2 green glass
1 bone button (one-holed)
4 wire nails
4 amorphous metal fragments
1 drainage pipe fragment
2 bone

EU1, Level 2 (10-20 cm)
3 clear glass
1 unidentifiable nail fragment
4 brick fragments

EU1, Level 3 (20-30 cm)
10 cinders

EU1, Level 4 (30-40 cm)
2 brick fragments

Surface, West Bank of Ditch, S2-S6
2 classic ironstone
1 clear tumbler base

Surface, East Bank of Ditch, S2-S6
2 ironstone
3 classic ironstone

Surface, Area 2A
1 classic ironstone
3 bisque figurine fragments
1 light blue jar neck, threaded closure
1 clear glass
1 clear bottle base
1 ceramic button (four-holed)
1 metal pipe
1 metal machinery/stove part
1 spike

large number of nails (eleven), suggests that a structure was formerly located in this vicinity. The fact that glass, ceramics, and bone were recovered suggests that the structure was probably residential, even though domestic debris was relatively sparse. Investigations at Beka Plantation (16OR90; Yakubik and Franks 1992), at Rockville (16PL155; Yakubik and Franks 1991) and at farmstead sites at Fort Polk (Franks and Yakubik 1990) indicate that late-nineteenth/early-twentieth-century residential sites in rural areas were generally kept clean and relatively free of surface refuse.

With the exception of one square nail, all of the identifiable nails collected were wire, indicating that the structure was probably built no earlier than the fourth quarter of the nineteenth century. All ceramics collected were undecorated. They consisted of ironstone, classic ironstone, and one sherd of porcelain. These also suggest a late-nineteenth/early-twentieth century date for the site. In addition to the ceramic tableware, fragments of at least two bisque figurines were recovered. One of these exhibited its natural white color, while the other, which appeared to be of a young girl, was colored with matte paints or glazes.

Other diagnostic artifacts included a four-holed ceramic button and a one-holed bone button. Made from porcelain, the former were first manufactured in the 1840s and they continued to be made into the twentieth century (Hinks 1988:136). Bone disks with single holes were actually molds for cloth- or thread-covered buttons (Hinks 1988:130-131). Bone buttons were sold at least through the 1920s (Rose and Santeford 1987:41).

Most of the glass was non-diagnostic, but one modern-looking soda bottle neck with a crown cap was found between 0-10 cm below surface in shovel test S20 E10. Another bottle base fragment was embossed with a post-1938 Anchor Hocking logo (Toulouse 1971:48). Since this was found on the surface, it may have been deposited subsequent to the occupation of the site. Thus, this bottle base fragment alone does not provide a *terminus post quem* for the termination of the occupation. However, the recovery of a phonograph record fragment at 10-20 cm below surface in shovel test S25 E15 strongly suggests that the site was occupied well into the twentieth century.

Site Interpretation. 16SC73 was probably the former site of a tenant's cabin located on Davis Plantation. As noted in Chapter 6, a number of structures were shown on the 1875 series and the 1921 Mississippi River Commissions maps near the route of the Texas and Pacific Railroad. Although

no structure is shown in this location on either of the maps, it is possible that a cabin was either built here and destroyed between the drafting of the two maps or built subsequent to the execution of the 1921 map. The presence of a phonograph record fragment at 10-20 cm below surface argues for the latter alternative, although this would indicate relict use of classic ironstone by the site's inhabitants.

It should be noted that none of the structures shown on the 1875 series and the 1921 Mississippi River Commission Maps and predicted as being within Area 1 shown on Figure 2 were located during survey. As discussed in Chapter 6, many of these sites were probably destroyed during levee and road construction. Then too, the batture within Area 1 was extensively borrowed. Thus, all historic sites formerly located within Area 1 were evidently destroyed by previous construction.

NRHP Evaluation. Forty shovel tests were excavated at 16SC73 but only eleven of these yielded artifacts. Most of these tests, as well as most of the surface artifacts and artifacts from the 1 x 1 m unit, provided no information concerning the dates of occupation of the site. However, a few diagnostic artifacts, in combination with negative map evidence, indicate that 16SC73 probably represents a residential site from the late-nineteenth or early-twentieth century.

To qualify for nomination to the National Register, it would be necessary for 16SC73 to be likely to yield information important in prehistory or history (National Park Service 1982:28). Louisiana's Comprehensive Archaeological Plan (Smith et al. 1983:95-96) identifies cultural themes for the region that includes Davis Pond. The relevant theme for 16SC73 is "Plantation Archeology." That document proposes that one of the research issues related to the theme is whether there are differences in lifeways for post-bellum occupants of sugar plantations compared to cotton plantations (Smith et al. 1983:98). Other important research issues related to plantations have also been proposed, such as the difference between lifeways of slaves as compared to Freedmen on sugar plantations.

Unfortunately, the paucity of artifacts at 16SC73 indicates that further excavations at the site would not be likely to yield information important to furthering our understanding of research issues like those discussed in the preceding paragraph. Admittedly, artifacts are usually not abundant at sites dated to this period. However, in the case of 16SC73 the tightly spaced shovel tests provided no

evidence for spatial patterning that might be an alternative source of data for understanding activity at the site. Also, there is no evidence for features such as trash pits or historic fence lines where artifacts might be concentrated or which might provide data concerning activity patterning.

The apparent absence of such features indicates that the site does not exhibit integrity which would also be necessary for it to be considered significant:

> For properties important for their information potential, integrity depends on the presence of those parts of the property which contain the important data and which survive in a condition capable of yielding important information (National Park Service 1982:37).

Because of its apparent lack of integrity and further research potential, 16SC73 should not be considered eligible or potentially eligible for nomination to the National Register of Historic Places.

16SC74

Site Description. 16SC74 is a site on the Mississippi River batture upriver from the proposed construction area. It was recorded in the course of walking into Survey Area 1 (Chapter 8). Because it was located outside the study area, no subsurface excavations were conducted. However, the site is reported in this chapter because of its potential significance and because of its proximity to the area of project impact.

Figure 30 shows that 16SC74 is a linear scatter of artifacts. The material is partially covered by rip-rap on the 3-meter high sloping bank. The most extensive exposure of material lies along a nearly continuous shelf (probably a historic ground surface) about 1 m above the river on the date of the site visit.

Two general loci of material were noted. Locus A is a concentration of bricks at 193-195 m downriver from Marker 121, and may represent fragments of an in situ floor. A fragment of a small blue and white glazed faience vessel, perhaps a rouge pot, was collected from the brick surface. Locus B is a cluster of artifact concentrations between 240 and 258 m downriver from Marker 121. Eighteenth- and nineteenth-century ceramics, a kaolin pipe stem, a gunflint, glass, fragments of iron cooking pots, a hand-wrought iron spike, other iron hardware, and faunal remains were

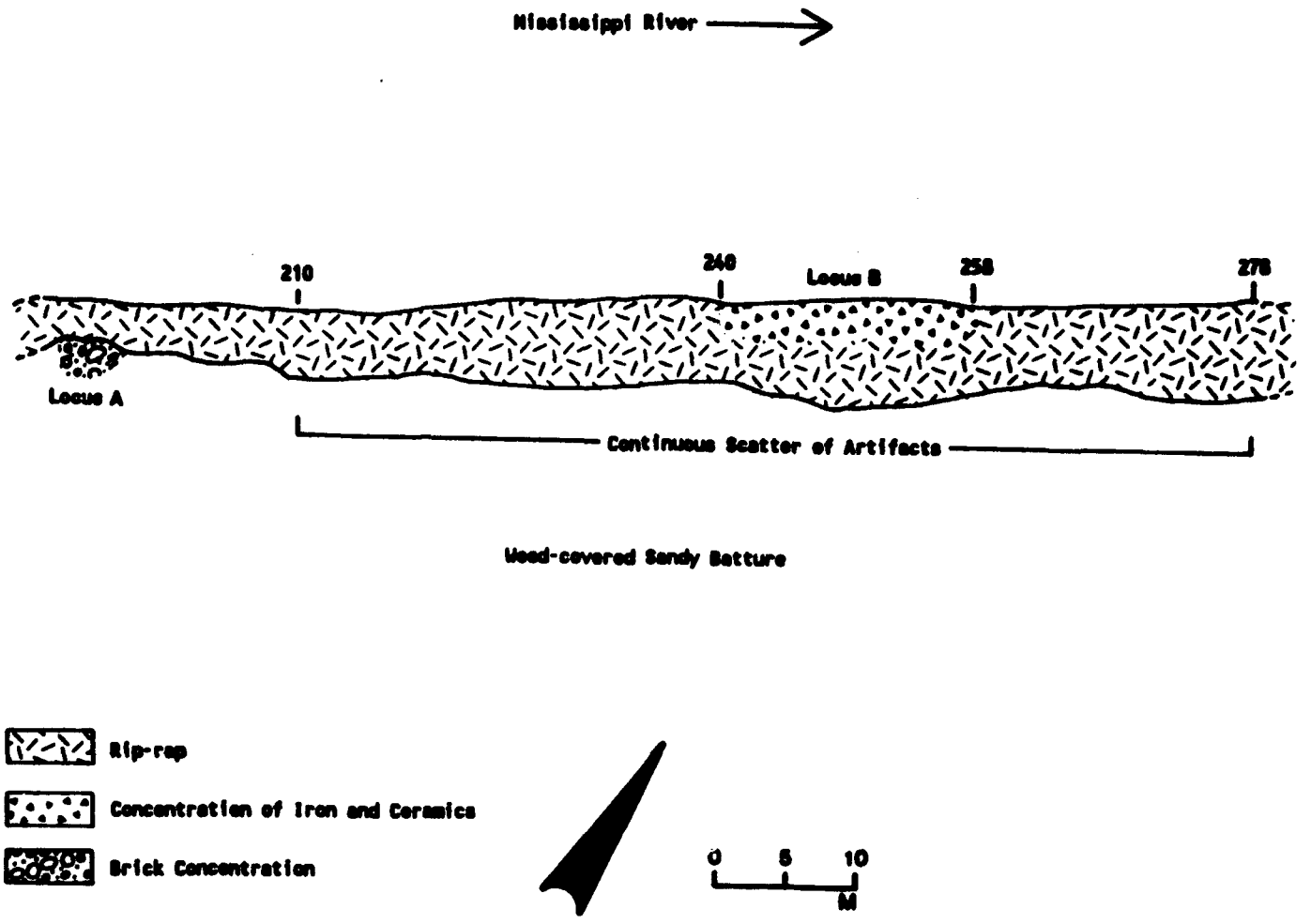


Figure 30. Site map of 16SC74.

collected around the 240 m position. Structural debris (nails and brick) were concentrated between 250 and 258 m. A general scatter of bones, ceramics, and miscellaneous artifacts extended from about 210 to 278 m.

Artifacts. Artifacts recovered from 16SC74 are presented in Table 27. The ceramic collection consisted primarily of cream-colored earthenwares, although two sherds of whiteware and four sherds of faience were recovered. In addition, a relatively large number (10 sherds) of six different types of coarseware were collected. These were sorted using the classification presented by Yakubik (1990).

Two of the coarseware sherds derived from a bowl of White on Red Slip-Decorated Redware (Yakubik 1990:244-245). This southern-French type is fairly rare in southeastern Louisiana collections. These particular sherds had a white slip applied over a red slip, which was swirled to produce a marbled effect. The bowl was well made, and the base was trimmed. Both sherds exhibited repair holes, indicating that an attempt was made to salvage the vessel after it cracked. Chapelot (1978:112 in Brain 1979:53) notes that this marbled decoration generally dates to the first half of the eighteenth century, although it has been recovered from contexts dating at least to 1780 at nearby Orange Grove Plantation (16JE141). In addition, two sherds of a Brown-Glazed Redware (Yakubik 1990:233-234) bowl also exhibited repair holes.

The collection yielded a mean ceramic date of 1801.9 (n=65). If it is assumed, given the presence of whiteware, that the site was occupied at least until 1830, this would suggest that occupation of the site began sometime prior to 1774. This would in fact be consistent with the presence of relatively large amounts of coarseware and faience, which are typically the only ceramics found on southeastern Louisiana sites prior to 1780.

A total of 78 sherds were collected, and these represent a minimum of 36 vessels (Table 28). A plurality of the vessels were plates. Table 28 also demonstrates that 25% of the vessels collected were either faience or coarsewares.

In addition to the ceramics, glass, smoking pipes, cooking pot fragments, a gunflint, flint debitage, and tool fragments were collected at 16SC74. These, along with the brick scatter, strongly suggest that the function of the site was residential. Again, it is worth noting that the other artifacts collected at 16SC74 are consistent with a late-eighteenth/early-nineteenth century date.

Table 27. Artifacts from 16SC74.

Locus A Surface

1	Flecked Lead-Glazed Redware
2	White on Red Slip-Decorated Redware
2	Brown-Glazed Redware
2	Yellow-Glazed Redware
1	Manganese-Glazed Redware
2	Albisola Trailed
1	faience
1	Polychrome Hand-Painted Faience
2	brown faience
15	creamware
1	annular creamware
12	pearlware
3	green shell-edged pearlware
9	blue shell-edged pearlware
3	blue hand-painted pearlware
2	polychrome hand-painted pearlware
1	finger-painted pearlware
2	annular pearlware
2	mocha pearlware
12	blue transfer-printed pearlware
1	polychrome hand-painted whiteware
1	black transfer-printed whiteware
1	black liquor bottle base, sand-tipped pontil
1	clear glass
7	olive glass
2	iron cooking pot fragments
1	chisel blade
1	iron hook
1	lead sprue
1	lead tube (sinker?)
3	pipestems
1	fluted pipebowl fragment
1	gunflint
1	flint debitage
1	clinker
4	bone fragments

Locus B Surface

1	faience rouge pot
1	blue shell-edged pearlware
1	green glass

Table 28. Minimum vessel estimates for 16SC74.

	Plate	Saucer	Bowl	Lid	Unident.	Total
Flecked Lead-Glazed Redware					2	2
Yellow-Glazed Redware					1	1
Manganese-Glazed Redware					1	1
Albisola Trailed	1					1
White on Red Slip-Decorated Redware			1			1
Brown-Glazed Redware			1			1
Polychrome Hand-Painted Faience					1	1
Brown Faience					1	1
Creamware	2	1	1			4
Annular Creamware			1			1
Green Shell-Edged Pearlware	3					3
Blue Shell-Edged Pearlware	5					5
Blue Hand-Painted Pearlware		1	1			2
Polychrome Hand-Painted Pearlware					2	2
Finger-Painted Pearlware					1	1

Table 28 (continued). Minimum vessel estimates for 16SC74.

	Plate	Saucer	Bowl	Lid	Unident.	Total
Annular Pearlware			1			1
Mocha Pearlware				1		1
Blue Transfer-Printed Pearlware	4		1			5
Polychrome Hand-Painted Whiteware					1	1
Black Transfer Printed Whiteware	1					1
Total	16	2	7	1	10	36

Site Interpretation. The presence of faience as well as several coarseware fragments indicates that the site was probably occupied prior to 1780. Although both coarsewares and faience continued to be utilized into the nineteenth century in southeastern Louisiana (Yakubik 1990), the relatively large number of sherds of coarseware as well as their variety strongly suggests that settlement at this site occurred prior to the widespread introduction of creamware in ca. 1780. Then too, the fact that two of the vessels were repaired also appears to indicate the site's occupants' need to conserve the vessels that they owned, possibly because market supply was poor. Because only two sherds of whiteware were recovered, the site may have been abandoned in the 1830s.

The site is located within the downriver portion of Section 27 in T.13S, R.21E. As noted in Chapter 6, this was probably the Masicots' first holding in St. Charles Parish, and Jacques Masicot *pere* may have lived in this locale at least since the 1760s. 16SC74, therefore, may have been the location of the original Masicot residence. If so, it may have been abandoned in the 1830s because of the construction of a new great house. As discussed in Chapter 6, Augustin Masicot appears to have prospered during the 1820s, and he may have built himself a new home.

NRHP Evaluation. Based on the date range of artifacts at 16SC74, the relevant themes for the site probably are "Historic Exploration and Colonization of Louisiana" and "Plantation Archeology" (Smith et al. 1983:95). It is important to note that sites dated to the eighteenth and even the early-nineteenth century are relatively rare along the Mississippi River in the region that includes 16SC74.

In terms of research potential, it is <u>possible</u> that excavations at this site could provide important information related to the two themes identified above. Thus, the site should be considered potentially eligible for nomination to the National Register under Criterion d (National Park Service 1982:28). The presence of a possible brick floor indicates that at least parts of the site may exhibit the quality of integrity (National Park Service 1982:37). However, because 16SC74 was outside the area of construction impact, no test excavations were conducted. Therefore, its true NRHP status remains undetermined. If plans for construction are changed in such a way that the site will be impacted, or if mobilization for construction will result in impact, then it is recommended that formal test excavations be undertaken.

16SC76

Site Description. Site 16SC76 is located between the channels of Bayous Cypriere Longue and Bois Piquant, a short distance above their confluence. The site lies within Section 44 of T.14S, R.21E, part of the Salvador Wildlife Management Area. The site is accessible via a jeep trail which follows the course of Bayou Cypriere Longue south from the Willowdale subdivision. That road traverses the property of the Rathborne Land Company.

The site was first recognized due to the presence of *Rangia* on the ground surface on and near the jeep road. A series of four judgmental shovel tests was placed in low earth hummocks northeast of the road, near the edge of the Bayou Bois Piquant inundation (Figure 31). The Cypriere Longue channel is about 15-20 m south-southwest of the road and the Bois Piquant channel 25-30 m north-northwest of the road at this locale. The low earth hummocks may be modern terrain features associated with construction of the jeep road. One of the shovel tests, about 5 m northeast of the jeep road,
recovered *Rangia* fragments to a depth of 20 cm. This positive shovel test was designated site datum.

Four 50 X 50 cm units were excavated in or near the jeep road. The four 50 x 50s represent the equivalent of a 1 x 1 m unit. They were used in place of a single unit in order to obtain data concerning subsurface deposits for several portions of the site.

EU 1 was placed at datum. Fragments of *Rangia* and unidentifiable metal were found to a depth of 20 cm. A metal spike was recovered in the 0-10 cm level. The homogeneous clay was sterile from 20 to 40 cm.

EU2 was placed in the road at S5 E0. *Rangia* was recovered at 0-10 cm. One prehistoric sherd was recovered in Level 3 (20-30 cm). With the exception of this sherd, the unit was sterile from 10 to 50 cm.

EU3 was placed by the southwestern edge of the road at S5 W5. *Rangia* was recovered at 0-20 cm. The unit was sterile from 20-40 cm. EU4 was placed by the northeastern edge of the road at S5 E10. *Rangia* was recovered at 0-10 cm; the unit was sterile from 10-40 cm.

Three auger tests were also excavated at the site. AT 1 was placed southwest of the road, about 5 m from the edge of the inundated swamp, at S10 E0. The test was sterile. Bedded silty clays and clayey silts were recorded to 200 cm

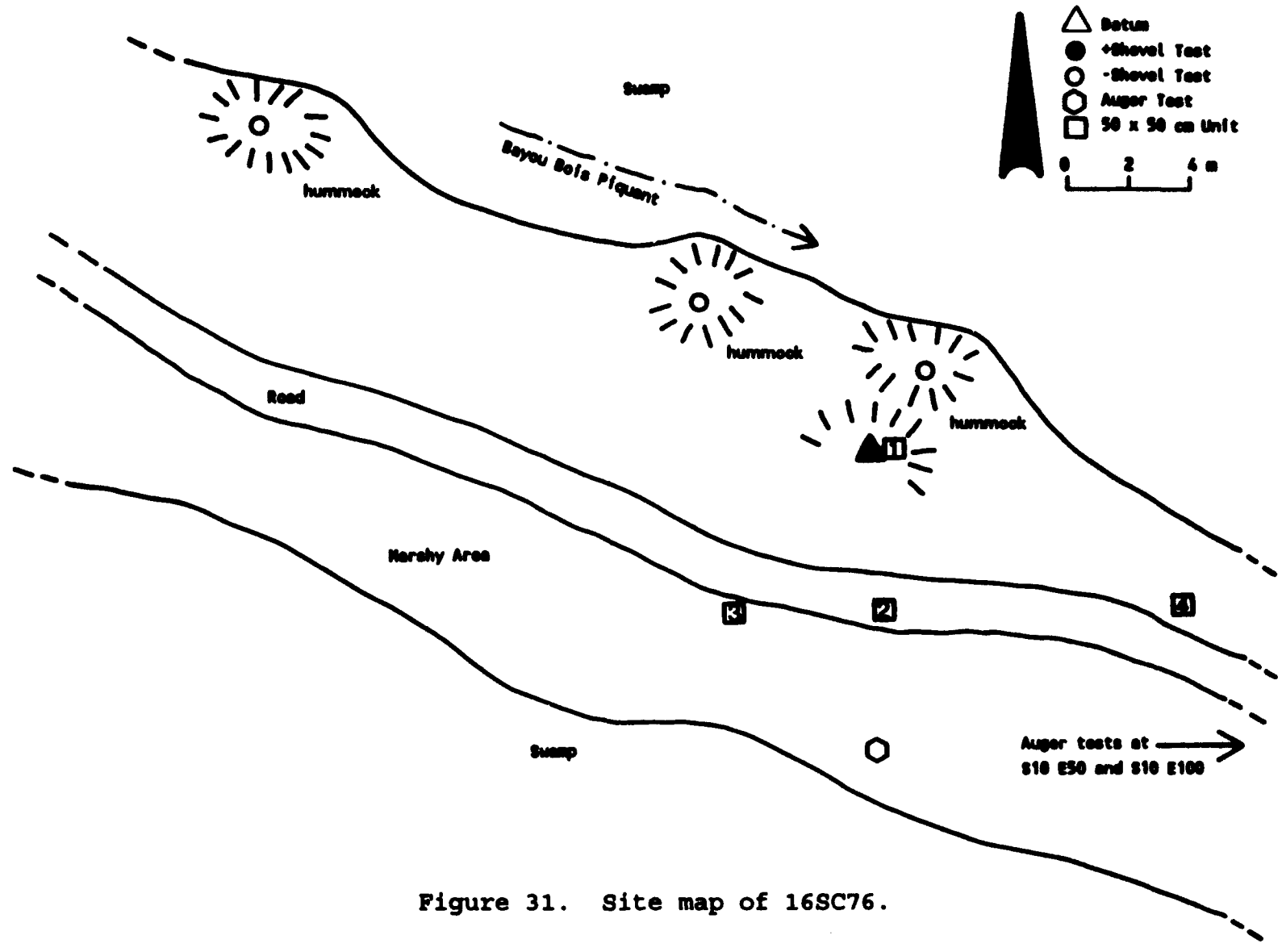


Figure 31. Site map of 16SC76.

depth. AT2 was placed northeast of the road, about 1 m from the edge of the Bois Piquant inundation, at S10 E50. Metal fragments were recovered at 20 to 40 cm depth. Solid clay was recorded from 40 to 200 cm. AT3 was placed northeast of the road, about 3 m from the Bois Piquant inundation, at S10 E100. A single *Rangia* shell, possibly from the surface, was recovered in the top 20 cm. The auger test otherwise was sterile. Bedded clay silts and silty clays were present to depth 40 cm, and clay from 40 to 140 cm. Stratigraphy in the 50 x 50 cm units and in the auger tests is presented in Table 29.

Artifact. The small sherd recovered at this site may have been incised but it was so eroded that certainty concerning any decoration was not possible. Because of its size and the degree of erosion, the paste could not be classified except as a grog-tempered example of Baytown Plain, *var. unspecified.*

Site Interpretation. 16SC76 is a very small scatter of *Rangia* shells associated with a very low density of ceramic sherds. It is located on the crest of the narrow natural levee near the confluence of Bayous Bois Piquant and Cypriere Longue. Similar sites were reported by Franks et al. (1990) along Bayou des Familles in the eastern portion of the Barataria Basin. These sites were sometimes only a few meters in diameter, and 1 x 1 m units yielded fewer than five sherds at most of them. Sites of this nature appear to represent locales where very brief episodes of prehistoric activity occurred, apparently involving *Rangia* and the use of ceramic vessels. Also, similar small-sized sites were reported by Pearson et al. (1989) at Golden Ranch near Lake Salvador. It is very likely that some of the *Rangia* scatters along Bayou Cypriere Longue (Chapter 8) represent sites of this nature.

The presence of metal fragments to a depth as great as the deepest prehistoric materials recorded in the testing regime, which were in fact quite shallow, reflects severe disturbance. Modern structural remains were noted on the ground surface about 60 m east of datum, where the jeep road crosses a channel. These remains probably explain the presence of metal fragments in AT2. The boring closest to 16SC76 was placed in an interdistributary swamp west of the bayou confluence and unfortunately did not provide material for a C-14 sample (Britsch and Dunbar 1990:8,17).

NRHP Evaluation. Four 50 x 50 cm units, representing the equivalent of a 1 x 1 m unit, yielded only small amounts of *Rangia* shell and a single prehistoric sherd. Deposits were shallow. Shells were recovered at depths of less than

Table 29. Stratigraphy in Auger Tests and 50 x 50 cm units at 16SC76.

Auger Test No. 1, S10 E0 - on shoulder of road, about 5 m from swamp

0-2 cm	10YR 3/2 (very dark grayish brown) silt loam
2-40	2.5Y 4/2 (dark grayish brown) silty clay with 10YR 4/6 (dark yellowish brown) and 10YR 2/2 (very dark brown) mottling
40-50	5Y 5/1 (gray) silt
50-60	5Y 4/1 (dark gray) clayey silt with organic (wood) inclusions
60-70	5Y 4/1 (dark gray) silty clay with 10YR 4/6 (dark yellowish brown) mottling
70-80	5Y 4/1 (dark gray) silty clay mixed with increasing amounts of 2.5Y 4/2 (dark grayish brown) clay; by 80 cm becomes pure clay with 10YR 4/6 (dark yellowish brown) and 10YR 2/2 (very dark brown) mottling
80-100	5Y 4/1 (dark gray) clay with 10YR 4/6 (dark yellowish brown) and 10YR 2/2 (very dark brown) mottling; increasing amounts of 5Y 4/1 (dark gray) silty clay
100-200	5Y 4/1 (dark gray) clay silt with abundant 10YR 4/6 (dark yellowish brown) mottling

Auger Test No. 2, S10 E50 - on N shoulder of road, 1 m from swamp

0-2 cm	10YR 3/2 (very dark grayish brown) silt loam
2-20	10YR 3/2 (very dark grayish brown) clayey silt with 10YR 4/6 (dark yellowish brown) mottling increasing with depth
20-40	5Y 3/1 (very dark gray) slightly silty clay (with inclusions of some organic woody material) and metal (?) fragments
40-200	5Y 3/1 (very dark gray) clay with organic material (roots) and some 10YR 4/6 (dark yellowish brown) mottling

Table 29 (continued). Stratigraphy in Auger Tests and 50 x 50 cm units at 16SC76.

Auger Test No. 3, S10 E100 - N shoulder of road, 3 m from swamp

0-20 cm	10YR 3/2 (very dark grayish brown) silty clay with 1 *Rangia* which probably came from the surface
20-40	5Y 3/1 (very dark gray) clayey silt with 10YR 4/6 (dark yellowish brown) mottling and roots
40-140	5Y 3/1 (very dark gray) clay silt with 10YR 4/6 (dark yellowish brown) mottling and roots
140	The auger breaks in the process of trying to remove a core of dense clay

Excavation Unit 1, 50 X 50 cm at Datum

0-10 cm	*Rangia*, metal (spike)
10-20 cm	*Rangia*, metal
20-30 cm	sterile
30-40 cm	sterile
0-40 cm	2.5Y 3/2 (very dark grayish brown) clay; roots present in all levels

Excavation Unit 2, 50 X 50 cm at E0 S5

0-10 cm	*Rangia*
10-20 cm	sterile
20-30 cm	1 sherd
30-40 cm	sterile
40-50 cm	sterile
0-6 cm	10YR 3/2 (very dark grayish brown) clayey silt loam
6-50 cm	2.5Y 4/2 (dark grayish brown) clayey silt with 5Y 4/1 (dark gray) mottling

Table 29 (continued). Stratigraphy in Auger Tests and 50 x 50 cm units at 16SC76.

Excavation Unit 3, 50 X 50 cm at S5 W5

0-10 cm	*Rangia*
10-20 cm	*Rangia*
20-30 cm	sterile
30-40 cm	sterile
0-6 cm	10YR 3/2 (very dark grayish brown) clayey silt loam
6-50	2.5Y 4/2 (dark grayish brown) clayey silt with 5Y 4/1 (dark gray) and 10YR 5/4 (yellowish brown) mottling

Excavation Unit 4, 50 X 50 cm at S5 E10

0-10 cm	*Rangia*
10-20 cm	sterile
20-30 cm	sterile
30-40 cm	sterile
0-6 cm	10YR 3/2 (very dark grayish brown) clayey silt loam
6-40 cm	2.5Y 4/2 (dark grayish brown) silty clay with 5Y 4/1 (dark gray) and 10YR 5/4 (yellowish brown) mottling (less mottling than in the other units at this site)

20 cm, and the sherd occurred within the roadbed at 20 to 30 cm. Modern, amorphous metal occurred at these same depths. The site has been disturbed by construction and use of a jeep trail along the highest portion of the natural levee here which is the area the site actually occupies.

Excavation of the four units has provided data on the depth of deposits and on the low density of artifacts. Given the density of cultural materials, additional excavations would not provide information that could further our understanding of prehistoric activity in the Barataria Region. Therefore, the site is not significant in terms of Criterion d which is related to research potential (National Park Service 1982). Also, the site's integrity has been compromised by construction and use of the jeep trail. For these reasons, 16SC76 should not be considered eligible or potentially eligible for nomination to the National Register. At present, construction plans will not result in impact to the site. Even if those plans change in such a way that impact will occur, it is recommended that additional archaeological testing is unnecessary because it would not be productive.